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Cunningham C.W.;
"Mitochondrial gene rearrangements confirm the parallel evolution the crab-like form.";
Proc. R. Soc. Lond., B. Biol. Sci. 269:345-350(2002).
EMBL; AF436024; AAL31599.1; -.
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                                                                                                                                                  Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca;
Eumalacostraca; Eucarida; Decapoda; Pleocyemata; Astacidea;
Astacoidea; Cambaridae; Procambarus.
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                                                                 01-MAR-2002 (TrEMBLrel. 20, Created)
01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
01-UJN-2003 (TrEMBLrel. 24, Last amnotation update)
Cytochrome oxidase subunit 1 (Fragment).
Procambarus clarkii (Red swamp crayfish).
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Sus scrofa (Pig).
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simian t-ly
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MEDLINE=96043217; PubMed=7486254;
Moody D.E.; Pomp D., Barendse W., Womack J.E.;

"Assignment of the growth hormone receptor gene to bovine chromosome 20 using linkage analysis and somatic cell mapping.";
Anim. Genet. 26:341-343(1995).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Cetartiodactyla, Ruminantia, Pecora, Bovidae,
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Submitted (APR-1995) to the EMBL/GenBank/DDBJ databases.
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24, Last annotation update)
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 NCBI_TaxID=9913;
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Eukaryota; Merazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Lepidosauria; Squamata; Iguania; Iguanidae; Oplurinae; Oplurus.
NCBI_TaxID=44151;
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Lepidosauria; Squamata; Iguania; Iguanidae; Phrynosomatinae;
                                                                                                                                                                                                                                                                                                                                                MEDLINE-97315309; PubMed-9169559; MEDLINE-97315309; PubMed-9169559; MEDLINE-97315309; PubMed-9169559; Manjeva N.B., Papenfuss T.J.; Manjeva V.B., Larsen A., Ananjeva N.B., Papenfuss T.J.; Evolutionary shifts in three major structural features of the mitochondrial genome among iguanian lizards."; J. Mbl. Evol. Evol. 44:660-674(1997). EMBL; U82685; AACA2233.1; -.. PRR; T17066; T17066.
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PIR: T17069; T17069; T17069.
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                                                                                                                                                                                                                                            Oplurus cuvieri (Madagascan collared iguanid lizard)
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nes 2; Conservative
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2 FINRWFFS 9
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Lepidosauria, Squamata, Iguania, Iguanidae, Polychrotinae, Anolis.
NOBI_TaxID=52189;
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Lepidosauria, Squamata, Iguania, Iguanidae, Hoplocercinae,
                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.

MEDLINE=97315309; PubMed=9169559;

Macey J.R., Larson A., Ananjeva N.B., Papenfuss T.J.;

Macy J. O.R., Larson A., In three major structural features of the mitochondrial genome among iguanian lizards.";

J. Mol. Evol. 44.660-674(1997).

EMBL; U82679; AAC62266.1;

Mitochondrion.
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"Evolutionary shifts in three major structural features of the
mitochondrial genome among iguanian lizards.";
J. Mol. Evol. 44:660-674(1997).
BMBL. 1082683, AACG2284.1;
PIR: T17063; T17063; Cimitochondrion; IEA.
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SEQUENCE 10 AA; 1349 MW; 0A3480C9D3640440 CRC64;
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01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
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01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
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25.0%; Pred. No. 5.4e+03;
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Mitochondrion.
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Schulte J.A. II, Valladares J.P., Larson A.; "Phylogenetic relationships within Iguanidae inferred using molecular and morphological data and a phylogenetic taxonomy of iguanian
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Lepidosauria; Squamata; Iguania; Iguanidae; Polychrotinae; Anolis.
NCBI_TaxID=174262;
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Lepidosauria; Squamata; Iguania; Iguanidae; Polychrotinae; Anolis.
NCBI_TaxID=174263;
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01-WAR-2002 (TrEMBLrel. 20, Last sequence update)
01-WLL-2004 (TrEMBLrel. 27, Last annotation update)
Cytochrome oxidase subunit 1 (Cytochrome c oxidase subunit 1)
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Schulte J.A., Valladares J.P., Larson A.;
Schulte J.A., Valladares J.P., Larson A.;
Submitted (JUL-2002) to the EMBL/GenBank/DDBJ databases.
EMBL, AF337775, AAL72033.1; -.
EMBL, AF3377777, AAL72035.1; -.
EMBL, AF337777, AAL72037.1; -.
EMBL, AF337777, AAL72037.1; -.
EMBL, AF237775, AL72037.1; -.
EMBL, AF237775, AL72037.1; -.
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Glor R.E., Vitt L.J., Larson A.;
Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases.
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10 AA; 1349 MW; 4B3480C9D3640447 CRC64;
10 AA; 1349 MW; C9348E29D3640449 CRC64;
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1-MAR-2002 (TrEMBLrel. 20, Last sequence update)
05-UTL-2004 (TrEMBLrel. 27, Last annotation update)
Cytochrome oxidase subunit 1 (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                10 AA.
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Anolis punctatus (Amazon green anole).
                                                                                                                                                                                                                                                                                                                                                                                PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Herpetologica 59:399-419(2003).
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Best Local Similarity 25...
Series 2; Conservative
                                                      Query Match
Best Local Similarity 25.0
Matches 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
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2 FFNRWFLS 9
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2 FLNRWFFS 9
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   SEQUENCE
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Q8W8Q2
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MEDLINE=97153820; PubMed=9000751;

Macay J.R., Larson A., Ananjeva N.B., Papenfuss T.J.;

Macay J.R., Larson A., Ananjeva N.B., Papenfuss T.J.;

Macay J.R., Larson Slippage may cause parallel evolution in the secondary structures of mitochondrial transfer RNAs.";

Mol. Biol. Bvol. 14:30-39(1997).

GO; GO:0005739; AAA48286.1; -.

GO; GO:0005739; C:mitochondrion; IEA.
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MEDLINE=97153826; PubMed=9000757;
Macey J.R., Larson A., Ananjeva N.B., Fang Z., Papenfuss T.J.;
Macey J.R., Larson A., Ananjeva N.B., Fang Z., Papenfuss T.J.;
Myo novel gene orders and the role of light-strand replication in rearrangement of the vertebrate mitochondrial genome.";
Mol. Biol. Evol. 14:91-104(1997).
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Lepidosauria; Squamata; Iguania; Iguanidae; Polychrotinae; Anolis.
NCBI_TaxID=174262;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Lepidosauria, Squamata; Scleroglossa, Scincomorpha; Scincoidea, Cordylidae, Platysaurus.
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Glor R.E., Vitt L.J., Larson A.;
Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; AF337800; AAL72083.1; -.
EMBL; AF337801; AAL72085.1; -.
GO; GO:0005739; C:mitochondrion; IEA.
Mitochondrion.
NON_TER 10 10
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                                                                                                                                                                                                                                                                                                                      01-MAY-1997 (TrEMBLrel. 03, Last sequence update) 01-JUN-2003 (TrEMBLrel. 24, Last annotation update) Cytochrome c oxidase subunit I (Fragment).
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1-MAR-2002 (TrEMBLrel. 20, Last sequence update)
05-UUL-2004 (TrEMBLrel. 27, Last annotation update)
Cytochrome oxidase subunit 1 (Fragment).
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Mitochondrion.
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FISRWFFS 9
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Matches 2; Conserv
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SEQUENCE 10 A
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Matches 2; Conservative
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2 FINRWFFS 9
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        SEQUENCE FROM N.A.
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Q8W970
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Lepidosauria; Squamata; Iguania; Iguanidae; Polychrotinae; Anolis.
NCBI_TaxID=174263;
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Lepidosauria; Squamata; Iguania; Iguanidae; Polychrotinae; Anolis.
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                        SEQUENCE FROM N.A.
Glor R.E., Vitt L.J., Larson A.;
Glor R.E., Vitt L.J., Larson A.;
Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; AF337803; AAL72087.1; -.
EMBL; AF337804; AAL72089.1; -.
EMBL; AF337804; AAL72091.1; -.
EMBL; AAT72091.1; -.
EMBL
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Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; AF337770; AAL72023.1; --
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SEQUENCE 10 AA; 1315 MW; 4B3480C733640447 CRC64;
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01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
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01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
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GO; GO:0005739; C:mitochondrion; IEA.
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EMBL, AF33772; AAL72027.1; --
EMBL, AF337773; AAL72029.1; --
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Best Local Similarity 25.0
Matches 2; Conservative
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2 FLNRWFFS 9
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Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Lepidosauria; Squamata; Iguania; Iguanidae; Polychrotinae; Anolis.
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Lepidosauria, Squamata, Iguania, Iguanidae, Polychrotinae, Anolis.
NCBI TaxID=141894;
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                           Glor R.E., Vitt L.J., Larson A.;
Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; AR337783; AAL72049.1; -.
GO; GO:0005739; C:mitochondrion; IEA.
Mitochondrion.
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GLOVER R.B., Vitt L.J., Larson A.;
Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases.
EMBL, AF3371821, AAL72047.1,
GO; GO:0005739; C:mitochondrion; IEA.
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Glor R.E., Vitt L.J., Larson A.;
Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases.
EMBL, AF337781; AAL72045.1; -.
GO; GO:0006739; C:mitochondrion; IEA.
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(TrEMBLrel. 20, Last sequence update)
(TrEMBLrel. 24, Last annotation update)
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01-MAR-2002 (TrEMBLrel. 20, Last seq
01-JUN-2003 (TrEMBLrel. 24, Last ann
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SEQUENCE 10 AA; 1349 MW;
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Matches 2; Conservative
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2 FINRWLFS 9
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2 FINRWFFS 9
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SEQUENCE FROM N.A.
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Q8WDH2
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Lepidosauria, Squamata, Iguania, Iguanidae, Polychrotinae, Anolis.
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Eukarrota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Lepidosauria, Squamata, Iguania, Iguanidae, Polychrotinae, Anolis,
VCBI_TaxID=141901;
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                  SEQUENCE FROM N.A.
Glor R.E., Vitt L.J., Larson A.;
Glor R.E., Vitt L.J., Larson A.;
Submitred (JAN-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; AF337787; AAL72055.1; --
EMBL; AF337789; AAL72057.1; --
EMBL; AF337789; AAL72061.1; --
EMBL; AF337799; AAL72063.1; --
EMBL; AF337791; AAL72063.1; --
EMBL; AF337791; AAL72063.1; --
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Glor R.E., Vitt L.J., Larson A.;
Glor R.E., Vitt L.J., Larson A.;
Submitrad (JAN-2001) to the EMBL/GenBank/DDBJ databases.
EMBL, AF337739, AAL72053.1; --
GO, GO:0005739; C:mitochondrion; IEA.
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NON TER 10 10
SEQUENCE 10 AA; 1349 MW; 0A3480C9D3640440 CRC64;
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01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
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01-MAR-2002 (TrEMBLrel. 20, Last seq
01-JUN-2003 (TrEMBLrel. 24, Last ann
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25.0%; P
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Best Local Similarity 25.C
Matches 2; Conservative
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FINRWFFS 9
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FINRWFFS 9
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Matches
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RESULT 20 Q8WDH6

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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Lepidosauria; Squamata; Scleroglossa; Gékkota; Gekkonidae; Strophurus.
NCBI_TaxID=255186;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Melville J., Schulte J.A. II, Larson A.,
Molecular Study of Phylogenetic Relationships and Evolution of
Antipredator Strategies in Australian Diplodactylus Geckos, Subgenus
Strophurus.",
Biol. J. Linn. Soc. Lond. 82:123-138(2004).

EMBL; AY365011; AAR18865.1; -.
GO, GO:0005739; C:mitochondrion; IEA.
                                                                                                                                                                                                                                                               Eukaryota; Merazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Lepidosauria; Squamata; Iguania; Iguanidae; Polychrotinae; Anolis.
NCBI_TaxID=174264;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 23; DB 2; Length 10; 25.0%; Pred. No. 5.4e+03; ive 6; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%; Score 23; DB 2; Length 10; 25.0%; Pred. No. 5.4e+03; ive 6; Mismatches, 0; Indels
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                                                                                                                                         01-MAR-2002 (TrEMBLrel. 20, Created)
01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
01-UJN-2003 (TrEMBLrel. 24, Last annotation update)
Cytochrome oxidase subunit 1 (Fragment).
Name=CO1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        05-JUL_2004 (TrEMBLrel. 27, Created)
05-JUL_2004 (TrEMBLrel. 27, Last sequence update)
05-JUL_2004 (TrEMBLrel. 27, Last annotation update)
Cytochrome c oxidase subunit I (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10 AA.
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Best Local Similarity 25.0
Matches 2; Conservative
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Matches 2; Conservative
                                                                                                           PRELIMINARY:
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2 FLNRWFFS 9
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2 FISRWLFS 9
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2 FINRWFFS
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05-JUL-2004
05-JUL-2004
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QGUJLS
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Lepidosauria; Squamata; Iguania; Iguanidae; Polychrotinae; Anolis.
NCBI_TaxID=174265;
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Lepidosauria, Squamata, Iguania, Iguanidae, Polychrotinae, Anolis.
NCBI_TaxID=174261;
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                                       Length 10;
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                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
Glor R.E., Vitt L.J., Larson A.;
Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases.
EMBL, AR337780; AAL72043.1; --
GO; GO:0005739; C:mitochondrion; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A. darson A.; Glor R.E., Vitt L.J., Larson A.; Glor R.E., Vitt L.J., Larson A.; Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases. EMBL, AP337779; ALT2041.1; GO; GO:0005739; C:mitochondrion; IEA.
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10 AA; 1349 MW; 0A3480C9D3640440 CRC64;
 10 AA; 1349 MW; 0A3480C9D3640440 CRC64;
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1-MAR-2002 (TrEMBLrel. 20, Last sequence update)
01-UNJ-2003 (TrEMBLrel. 24, Last annotation update)
Cytochrome oxidase subunit 1 (Fragment).
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1-MAR-2002 (TrEMBLrel. 20, Last sequence update)
01-UNA-2003 (TrEMBLrel. 24, Last annotation update)
Cytochrome oxidase subunit 1 (Fragment).
                                   100.0%; Score 23; DB 2; L 25.0%; Pred. No. 5.4e+03; ative 6; Mismatches 0;
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Best Local Similarity 25.0
Matches 2; Conservative
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Matches 2; Conservative
                                                                        Conservative
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                Query Match
Best Local Similarity
Local 2; Conserve
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FINRWLFS 9
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NON TER 10
SEQUENCE 10
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                                                                                                                                                                                                                                                                                                                                           Name=CO1;
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SEQUENCE
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RESULT 21 Q8WDH8

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Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Lepidosauria, Squamata, Iguania, Iguanidae, Phrynosomatinae,
                                                 05-JUL-2004 (TrEMBLrel. 27, Last sequence update) 05-JUL-2004 (TrEMBLrel. 27, Last annotation update) Cytochrome oxidase subunit I (Fragment).
                                     05-JUL-2004 (TrEMBLrel. 27,
             PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sceloporus maculosus.
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                                                                                              Sceloporus jalapae.
Mitochondrion.
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Best Local Similarity
                                                                                                                                                          NCBI TaxID=57316;
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                                                                                                                                                Sceloporus.
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                                                                                      Name=COI;
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             Q6WBR4
Q6WBR4;
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   OGWBR4
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Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Lepidosauria, Squamata, Iguania, Iguanidae, Phrynosomatinae,
                                                                                                                                  Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Lepidosauria, Squamata, Iguania, Iguanidae, Phrynosomatinae,
                                                                                                                                                                                                    MEDLINE-22801591; PubMed=12920297; DOI=10.1126/science.1084786; Harmon L.J., Schulte J.A., Larson A., Losos J.B.; Tempo and mode of evolutionary radiation in iguanian lizards."; Science 301:961-964 (2003).
EMBL; AX297513; AAP84510.1; -...
Mitochondrion; IEA.
Mitochondrion.
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EMBL; AX297505; AAP84486.1; -...

GO: GO:0005739; C:mitochondrion; IEA.
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100.0%; Score 23; DB 2; Length 10;
Best Local Similarity 25.0%; Pred. No. 5.4e+03;
Matches 2; Conservative 6; Mismatches 0; Indels
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NON TER 10 10

SEQUENCE 10 AA; 1349 MW; 0A3480C9D3640440 CRC64;
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SEQUENCE 10 AA; 1349 MW; 0A3480C9D3640440 CRC64;
                                            05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
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05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Cytochrome oxidase subunit I (Fragment).
                         10 A.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10 AA.
                                                                                   Cytochrome oxidase subunit I (Fragment).
                                                                                                          Sceloporus woodi (Florida scrub lizard)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                         PRT;
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Best Local Similarity 25.07
Lag 2; Conservative
                         PRELIMINARY;
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2 FINRWFFS 9
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2 FINRWFFS 9
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                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                     NCBI_TaxID=59726;
                                                                                                                        Mitochondrion
                                                                                                                                                           Sceloporus.
                                                                                                Name=COI;
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                        O6WBN7
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RESULT 24
Q6WBN7
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Q6WBR1
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Lepidosauria; Squamata; Iguania; Iguanidae; Phrynosomatinae;
SEQUENCE FROM N.A.

MEDLINE=22801591, PubMed=12920297, DOI=10.1126/science.1084786;
Harmon L.J., Schulte J.A., Larson A., Losos J.B.;
Harmon L.J., Schulte J.A., Larson A., Losos J.B.;
Hompo and mode of evolutionary radiation in iguanian lizards.";
Science 301:961-964(2003).

EMBL; AY297504; AAP84483.1;
O), GO:0005739; C:mitochondrion; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.

MEDLINE=22801591; PubMed=12920297; DOI=10.1126/science.1084786; Harmon L.J., Schulte J.A., Larson A., Losos J.B.; "Tempo and mode of evolutionary radiation in iguanian lizards."; Science 301:961-964(2003).

EMBL; AX297501; AAP84474.1; -.
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                                                                                                                                                                                                                                                                                                            100.0%; Score 23; DB 2; Length 10; 25.0%; Pred. No. 5.4e+03; ative 6; Mismatches 0; Indels
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05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Cytochrome oxidase subunit I (Fragment).
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Best Local Similarity 25...
2, Conservative
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RESULT 28 Q6WBT8

RESULT 26

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Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Lepidosauria, Squamata, Iguania, Iguanidae, Phrynosomatinae,
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Lepidosauria, Squamata; Iguania, Iguanidae, Phrynosomatinae;
                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.

MEDLINE-22801591; PubMed=12920297; DOI=10.1126/science.1084786;
Harmon L.J., Schulte J.A., Larson A., Losos J.B.;
"Tempo and mode of evolutionary radiation in iguanian lizards.";
Science 301.961-964(2003)
EMBL; AY297494; AAP84453.1; -
GO, GO:0005739; C:mitochondrion; IEA.
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MEDLINES-2801591, bubMed=12920297; DOI=10.1126/science.1084786;

Harmon L.J., Schulte J.A., Larson A., Losos J.B.;

"Tempo and mode of evolutionary radiation in iguanian lizards.";

Science 301.961-964(2003).

EMBL; AXZ97488; AAP84435.1;

GO; GO:0005739; C:mitochondrion; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 23; DB 2; Length 10; 25.0%; Pred. No. 5.4e+03; ive 6; Mismatches 0; Indels
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SEQUENCE 10 AA; 1349 MW; 0A3480C9D3640440 CRC64;
                             05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Cytochrome oxidase subunit I (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 25.v.
2; Conservative
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                                                                                                                                                                      Sceloporus siniferus.
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2 FTNRWLFS 9
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Best Local Similarity
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2 FINRWFFS
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                                                                                                                                                                                                                                                                                        Sceloporus.
                                                                                                                                               Name=COI;
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ID Q6
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                                                                                                                                                                                                                                                     Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Lepidosauria, Squamata, Iguania, Iguanidae, Phrynosomatinae,
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Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Lepidosauria, Squamata, Iguania, Iguanidae, Phrynosomatinae,
                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE-22801591; PubMed=12920297; DOI=10.1126/science.1084786; Harmon L.J., Schulte J.A., Larson A., Losos J.B.; "Tempo and mode of evolutionary radiation in iguanian lizards."; Science 301:961-964(2003).
EMBL; AY297466; AAP84459.1; -...
GO: GO:0005739; C:mitochondrion; IEA.
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MEDLINE=22801591; PubMed=12920297; DOI=10.1126/science.1084786;
Harmon L.J., Schulte J.A., Larson A., Losos J.B.;
"Tempo and mode of evolutionary radiation in iguanian lizards.";
Science 301:961-964(2003).
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10 AA; 1349 MW; 0A3480C9D3640440 CRC64;
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                                                 05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
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05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Cytochrome oxidase subunit I (Fragment).
10 AA.
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                                                                                                                                      Cytochrome oxidase subunit I (Fragment)
Name=COI;
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GO; GO:0005739; C:mitochondrion; IEA.
  PRT;
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Best Local Similarity 25.v
1.conservative
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Best Local Similarity 25.0
Matches 2; Conservative
PRELIMINARY;
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                                                                                                                                                                                             Sceloporus carinatus.
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2 FINRWFFS 9
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                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=110853;
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FINRWFFS
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NON TER 10
SEQUENCE 10 AJ
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SEQUENCE
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RESULT 29 Q6WBU

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05-JUL-2004 (TrEMBLrel. 27, Last sequence update) 05-JUL-2004 (TrEMBLrel. 27, Last annotation update) Cytochrome oxidase subunit I (Fragment).
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les 2, Conservative
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                                                                                                                             Phrynosoma coronatum.
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FINRWFFS 9
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Best Local Similarity
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                                                                                                                                                                                                                                                                             NCBI_TaxID=159093;
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SEQUENCE
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Q6WZN6
ID Q6WZN
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DT 05-JUJ
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Lepidosauria, Squamata, Iguania, Iguanidae, Phrynosomatinae,
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Lepidosauria, Squamata, Iguania, Iguanidae, Phrynosomatinae,
                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
MEDLINE=22801591; PubMed=12920297; DOI=10.1126/science.1084786;
MEDLINE=22801591; PubMed=12920297; DOI=10.1126/science.1084786;
Harmon L.J., Schulte J.A., Larson A., Losos J.B.;
Harmon and mode evolutionary radiation in iguanian lizards.";
Science 301:961-964(203).
EMBL; AY297487; AAP84432.1; -.
GO; GO:0005739; C:mitochondrion; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE=22801591; PubMed=12920297; DOI=10.1126/science.1084786; Harmon L.J., Schulte J.A., Larson A., Losos J.B.; Tempo and mode of evolutionary radiation in iguanian lizards."; Science 301.961-964 (2003).
EMBL; AY297486; AAP84429.1; -. GO; GO:0005739; C:mitochondrion; IEA.
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05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Cytochrome oxidase subunit I (Fragment).
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05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Cytochrome oxidase subunit I (Fragment).
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                                                                                                                                                      Phrynosoma cornutum (Texas horned lizard)
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05-JUL-2004 (TrEMBLrel. 27, Created)
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Matches 2; Conservative
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Matches 2; Conservative
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2 FINRWFFS 9
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2 FINRWFFS 9
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NCBI_TaxID=159094;
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SEQUENCE
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Q6WBX1
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Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Lepidosauria, Squamata, Iguania, Iguanidae, Phrynosomatinae,
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Lepidosauria, Squamata, Iguania, Iguanidae, Phrynosomatinae,
                                                                                                                                                                                       MEDLINE=22801591; PubMed=12920297; DOI=10.1126/science.1084786; Harmon L.J., Schulte J.A., Larson A., Losos J.B.; Harmon I.J., Schulte J.A., Larson A., Losos J.B.; Science 301:961-964(2003).

EMBL; AY297485; AAP84426.1; -...
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MEDLINE=22801591; PubMed=12920297; DOI=10.1126/science.1084786;
Harmon L.J., Schulte J.A., Larson A., Losos J.B.;
"Tempo and mode of evolutionary radiation in iguanian lizards.";
Science 301:961-964(2003).
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10 AA; 1349 MW; 0A3480C9D3640440 CRC64;
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05-UUL-2004 (TrEMBLrel. 27, Last sequence update)
05-UUL-2004 (TrEMBLrel. 27, Last annotation update)
Cytochrome oxidase subunit I (Fragment).
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05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
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MEDLINE=22990428; PubMed=14628926;
Glor R.E., Kolbe J.J., Powell R., Larson A., Losos J.B.;
Glor R.E., Kolbe J.J., Powell R., Larson A., Losos J.B.;
"Phylogenetic analysis of ecological and morphological diversification in Hispaniolan trunk-ground anoles (Anolis cybotes group).";
ENGL; AY263036; AAP94377.1;
GO, GO.0005739; Camitochondrion; IEA.
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MEDLINE=22990428; PubMed=14628926;
MEDLINE=22990428; PubMed=14628926;
Glor R.E., Kolbe J.J., Powell R., Larson A., Losos J.B.;
"Phylogenetic analysis of ecological and morphological diversification in Hispaniolan trunk-ground anoles (Anolis cybotes group).";
Evolution 57:2383-2397(2003).
                                                                                                                                                                                   Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Lepidosauria, Squamata, Iguania, Iguanidae, Polychrotinae, Anolis,
NCBI_TaxID=237982;
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Lepidosauria; Squamata; Iguania; Iguanidae; Polychrotinae; Anolis
NCBL_TaxID=237981;
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10 AA; 0A3480C9D3640440 CRC64;
  05-JUL-2004 (TrEMBLrel. 27, Created)
5-JUL-2004 (TrEMBLrel. 27, Last sequence update)
25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
Cytochrome oxidase subunit I (Fragment) (Fragment).
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05-JUL_2004 (TrEMBLrel. 27, Last sequence update)
25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
Cytochrome oxidase subunit I (Fragment) (Fragment).
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EWBL, AY263017, AAP94328.1;
EWBL, AY263019, AAP94331.1;
EMBL, AY263020, AAP94337.1;
EWBL, AY263020, AAP94337.1;
EWBL, AY263023, AAP9434.1;
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2 FINRWFFS 9
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                                                                                                                                              Anolis shrevei.
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                                                                                                                 Name=CO1;
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                                                                                                                                                                                                                                        SEQUENCE FROM N.A.

MEDLINE=22990428; PubWed=14628926;

MEDLINE=22990428; PubWed=14628926;

Glor R.E., Kolbe J.J., Powell R., Larson A., Losos J.B.;

"Phylogenetic analysis of ecological and morphological diversification in Hispanicolan trunk-ground anoles (Anolis cybotes group).";

Evolution 57:2393-2397(2003).

EMBL, AY263139, AAP94567.1; --

EMBL, AY263138, AAP94567.1; --

EMBL, AY263138, AAP94561.1; --

EMBL, AY263138, Comitochondrion; IEA.
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MEDLINE=22990428; PubWed=14628926;

Glor R.E., Kolbe J.J.; Powell R., Larson A., Losos J.B.;

Glor R.E., Kolbe J.J.; Powell R., Larson A., Losos J.B.;

"Phylogenetic analysis of ecological and morphological diversification in Hispanicolan trunk-ground anoles (Anolis cybotes group).";

EVOIUTION 57:2383-2397(2003).

GO: GO: 0005739; C:mitochondrion; IEA.
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                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Lepidosauria; Squamata; Iguania; Iguanidae; Polychrotinae; Anolis.
NCBI_TaxID=38891;
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Lepidosauria, Squamata, Iguania, Iguanidae, Polychrotinae, Anolis,
NCBI_TaxID=237983,
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Pred. No. 5.4e+03;
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10 AA; 1367 MW; BE3480C9D3640446 CRC64;
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05-JUL-2004 (TrEMBLrel. 27, Last annotation update) Cytochrome oxidase subunit I (Fragment).
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05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
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                                                                                 Anolis cybotes (large-headed anole)
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25.0%; P
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SEQUENCE 10 AA; 1349 MW; 0A3480C9D3640440 CRC64;
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Q6X0D2;
05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
Cytochrome oxidase subunit I (Fragment)
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This is a MDM2 binding peptide derivative capable of binding to a human oncogenic protein MDM2. The MDM2 binding peptides can specifically invitro concogenic protein MDM2. The MDM2 binding of the human p53 protein, in vitro or invivo. Inhibiting the interaction between the p53 and MDM2 can induce growth arrest or apoptosis in tumour cells comprising a wild-type induce growth arrest or apoptosis in tumour cells comprising a wild-type p53 and non-elevated levels of MDM2. The peptides may be used to identify molecules that bind to MDM2 and to identify and design inhibitors of molecules that bind to MDM2 and to identify and design inhibitors of molecules that bind. They may also be used to purify binding partners especially MDM2, diagnose disease by measuring levels of MDM2 in blood of cancer and leukseanta partients and for treatment or prevention of disease involving p53/MDM2 interactions, especially tumours and viral infections. The peptides can be administered masally, rectally, orally or by injection and accumulation in normal cells. The peptides can activate p53 function and accumulation in normal cells. The peptides can blocking activity compared with wild-type p53 have a significantly greater
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MDM2; oncogenic protein; p53; human; inhibition; interaction; cancer; tumour; diagnosis; binding; viral infection.
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/note= "preferentially Asp"
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/note= "preferentially Gly"
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                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 24; DB 2; 22.2%; Pred. No. 1.8e+06; ive 7; Mismatches 0;
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/note= "preferentially Arg"
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                   Example 6; Page 26; 45pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity 22.2
les 2, Conservative
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Synthetic
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                                                                                                                                                                                                                                                    Human
Human
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Chene P, Furet P;
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(CANC-) CANCER RES CAMPAIGN TECHNOLOGY.
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ADL22050
ADL22085
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ADM79036
ADL26376
ADO17442
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ADO17420
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Garcia-Echeverria C,
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 Key
Modified-site
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Homo sapiens
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07-APR-1997;
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 AAW37216;
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97WO-EP003549.
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97GB-00007041
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Best Local Similarity 44.4%;
Marches 4; Conservative
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Garcia-Echeverria C,
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     WO9801467-A2
                                                                                                                 04-JUL-1997;
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07-APR-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This represents a generic peptide that is capable of binding to an oncogenic protein MDM2 (especially human DM2). The peptide and its concogenic protein MDM2 (especially human DM2). The peptide and its thuman p53 protein, in vitro or in vivo. Inhibiting the interaction between the p53 and MDM2 can induce growth arrest or apoptosis in tumour calls comprising a wild-type p53 and non-elevated levels of MDM2. The peptide or its derivatives may be used to identify molecules that bind to MDM2 and to identify and design inhibitors of MDM2/p53 binding. They may also be used to purify binding partners especially MDM2, diagnose disease by measuring levels of MDM2 in blood of cancer and leukaemia patients and for treatment or prevention of disease involving p53/MDM2 interactions, especially, orally or by injection. By interfering with MDM2/p53 interaction, the peptides can activate p53 function and accumulation in normal cells. The peptides which minmic the MDM2 binding site in p53, have a significantly greater blocking activity compared with wild-type p53
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                                                                                                                                                                                                                                                                                                  Compounds binding to MDM2 protein and inhibit its interaction with p53 useful in, e.g. diagnosis and treatment of cancer and viral infections and identifying binding agents.
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                                                                                                                                                               Picksley S, Hochkeppel H;
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note= "2-Aminoisobutyric acid"
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                                                                                                                                                               Lane D, Boettger V, Boettger A, Picks
Garcia-Echeverria C, Chene P, Furet P;
                                                                           (NOVS ) NOVARTIS AG.
(CANC-) CANCER RES CAMPAIGN TECHNOLOGY.
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96GB-00014197.
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Modified-site
05-JUL-1996;
07-APR-1997;
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This is a MDWZ binding peptide derivative capable of binding to a human oncogenic protein MDMZ. The MDMZ binding peptides can specifically changed in thibit or block the binding of MDMZ to the human p53 protein, in vitro or in vivo. Inhibiting the interaction between the p53 and MDMZ can induce growth arrest or apoptosis in tumbour cells comprising a wild-type p53 and mon-elevated levels of MDMZ. The peptides may be used to identify molecules that bind to MDMZ and to identify and design inhibitors of MDMZ/p53 binding. They may also be used to purify binding partners of MDMZ/p53 binding. They may also be used to purify binding partners especially MDMZ, diagnose disease by mesauring levels of MDMZ in blood of cancer and leukaemia patients and for treatment or prevention of disease involving p53/MDMZ interactions, especially tumours and viral infections. The peptides can be administered masally, rectally, orally or by injection. By interfering with MDMZ/p53 interaction, the peptides can activate p53 function and accumulation in normal cells. The peptides can which mimic the MDMZ binding site in p53, have a significantly greater
                                                                                                                                                                                                                                                                                                                                                                                                      Compounds binding to MDM2 protein and inhibit its interaction with p53 useful in, e.g. diagnosis and treatment of cancer and viral infections and identifying binding agents.
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                                                                                                                                                   Boettger A, Picksley S, Hochkeppel H;
Chene P, Furet P;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           which mimic the MDM2 binding site in p53, have blocking activity compared with wild-type p53
(NOVS ) NOVARTIS AG.
(CANC-) CANCER RES CAMPAIGN TECHNOLOGY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Example 5; Page 25; 45pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAW37179 standard; peptide; 9 AA.
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4; Conservative
                                                                                                                                             Lane D, Boettger V,
Garcia-Echeverria C,
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                                                                                                                                                                                  WPI; 1998-100996/09.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 9 AA;
                                                04-JUL-1997;
  WO9801467-A2
                                                                                    07-APR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO9934826-A1
                                                                       05-JUL-1996;
                          15-JAN-1998
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAY25555;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAY25555
ID AAY
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                                                                                                                                                                                                  This peptide is capable of binding to an oncogenic protein MDM2 (especially human DM2). The MDM2 binding peptides can specifically inhibit by block the binding of MDM2 to the human p53 protein, in vitro or in vivo. Inhibiting the interaction between the p53 and MDM2 can induce growth arrest or apoptoais in tumour cells comprising a wild-type p53 and non-elevated levels of MDM2. The peptides may be used to identify molecules that bind to MDM2 and to identify and design inhibitors of MDM2/p53 binding. They may also be used to purify binding partners especially MDM2, diagnose disease by measuring levels of MDM2 in blood of cancer and leuksemia patients and for treatment or prevention of disease involving p53/MDM2 interactions, especially tumours and viral infections. The peptides can be administered nasally, rectally, orally or by a crivate p53 function and accumulation in normal cells. The peptides can activate p53 function and accumulation in normal cells. The peptides can be administered in p53, have a significantly greater blocking activity compared with wild-type p53
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                Compounds binding to MDM2 protein and inhibit its interaction with p53 useful in, e.g. diagnosis and treatment of cancer and viral infections and identifying binding agents.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        'note= "Ac3c (1-amino-cyclopropane-1-carboxylic acid)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human oncogenic protein MDM2 binding N-acylated peptide derivative 16.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MDM2; oncogenic protein; p53; human; inhibition; interaction; cancer; tumour; diagnosis; binding; viral infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                       Pickeley S, Hochkeppel H;
                                                                                                                                                                                                                                                                                                                                                                                                                                     ; Score 24; DB 2; Length 9; Pred. No. 1.8e+06; 7; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /label= Aib
/note= "2-Aminoisobutyric acid"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  note= "N-terminal acetyl"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note= "C-terminal amide"
                                                                                  Furet P:
                                              CANCER RES CAMPAIGN TECHNOLOGY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                       Boettger A,
Chene P, Fu
                                                                                                                                                                               Disclosure, Page 8; 45pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAW37213 standard; peptide; 9 AA.
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22.2%; I
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96GB-00014197
97GB-00007041
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Best Local Similarity 22.1.,
Best 2; Conservative
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                                                                      Lane D, Boettger V,
Garcia-Echeverria C,
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1 RFMDYWEGL 9
                                   (NOVS ) NOVARTIS AG
                                                                                                         WPI; 1998-100996/09
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 9 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Modified-site
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05-JUL-1996;
07-APR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAW37213;
                                               CANC-)
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##X###X#X###X#X####X#X####X#X###
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This is a MDM2 binding peptide derivative capable of binding to a human oncognic protein MDM2. The MDM2 binding peptides can specifically invito or block the binding of MDM2 to the human p53 protein, in vitro or in vivo. Inhibiting the interaction between the p53 and MDM2 can obscure of everted levels of MDM2. The peptides may be used to identify molecules that bind to MDM2 and to identify and deasign inhibitors of MDM2. They may also be used to purify binding partners of especially MDM2, diagnose disease by measuring levels of MDM2 in blood of cancer and leukaemia patients and for treatment or prevention of disease involving p53/MDM2 interactions, especially tumours and viral infections. The peptides can be administered nasally, rectally, orally or by injection. By interfering with MDM2/p53 interaction, the peptides can catility and massimal contraction, the peptides can activity and massimal contraction, the peptides can activity of injection. By interfering with MDM2/p53 interaction, the peptides can activity and activity p53 function and accumulation in normal cells. The peptides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Major histocompatibility complex; class II; desensitising; human; allergen; grass; tree; weed; pollen; fungi; mould; food; insect; sting; chiromidae; spider; mite; housefily; fruit fly; sheep blow fly; honeybee; screw worm fly; grain weevil; slikworm; bee moth; larvae; mealworm; cat; cockroach; beetle; dog; horse; cow; pig; sheep; rabbit; rat; guinea pig; mice; gerbil; vaccine; treatment; prevention; hypersensitivity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Compounds binding to MDM2 protein and inhibit its interaction with p53 useful in, e.g. diagnosis and treatment of cancer and viral infections and identifying binding agents.
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                                                                                                                                                                                                                                                                                                                                                                                      Boettger A, Picksley S, Hochkeppel H;
Chene P, Furet P;
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                                                                                                                                                                                                                                      (NOVS ) NOVARTIS AG.
(CANC-) CANCER RES CAMPAIGN TECHNOLOGY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 5; Page 25; 45pp; English.
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97WO-EP003549.
                                                                                            96GB-00014197
                                                                                                                                               97GB-00007041
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The invention relates to a human cancer-associated polypeptide plu-1. The plu-1 polypeptide can be recombinantly expressed by standard recombinant methodology. Detection of the plu-1 nucleic acid or the polypeptide is used for the following: (i) diagnosis (including imaging) and prognosis of, and determination of susceptibility to, cancer, specifically ovarian or breast cancer; and ii) treating cancer (by inducing an immune response against cancer cells, e.g. as a vaccine, or by antisense inhibition). Antigens derived from the polypeptide are used to generate activated cytotoxic T lymphocytes, or dendritic cells, for subsequent return to the patient for treatment of cancer. The polypeptide may also be used to identify inhibitors of plu-1 activity. Fragments of the polypeptide, and antibodies raised against plu-1, are useful as assay and imaging agents, and also therespeutically (to induce an anti-idotype response or where
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     conjugated to cytotoxic agents). The plu-1 antigen is expressed more commonly in breast tumors than some known tumor antigens. Sequences AAV55320-629 represent predicted peptides from the plu-1 polypetide which may bind to the human class I alleles B27, A2, A3 and A11
                                                                                       New nucleic acid encoding the cancer-associated polypeptide plu-1, for diagnosis, treatment and prevention of cancer, especially of breast and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                103P2D6; PCR primer; DNA adaptor; proståte; testis; foetal tissue; tumour; cancer; bone; ovary; breast; pańcreas; colon; lung; cytostatic; gene therapy; antibody therapy; ribozymė; serum; blood; urine; bladder; single chain monoclonal antibody; cervix; human.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human MHC molecule HLA-All binding 103P2D6 peptide #22.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; Score 24; DB 2; L. Pred. No. 1.8e+06; 7; Mismatches 0;
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Challita-Eid PM, Faris M, Jakobovits A;
                                                                                                                                                                                   Example 2; Fig 12; 173pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAU24137 standard; peptide; 9 AA.
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22.2%; P
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13-JUL-2000; 2000US-0218856P.
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Taylor-Papadimitriou J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (UROG-) UROGENESYS INC
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                                           WPI; 1999-591090/50
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1 VFEPSWEEF
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 9 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 8
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                                                                                                                                                                                                                                                                                                                                                        This invention describes a novel method of desensitizing a patient to a polypeptide allergen and comprises administering to the patient a peptide detrived from the allergen where restriction to a MHC Class II molecule possessed by the patient can be demonstrated for the peptide and the possesses the MHC Class II molecule. The methods can be used for desensitising patients to allergens present in an individual who possesses the MHC Class II molecule. The methods can be used for desensitising patients to allergens present in e.g. grass, tree and weed (including ragweed) pollens, fungi and moulds, foods, stinging insects, the chiromidae (non-biting midges), spiders and mites, housefly, fruit CC fly, sheep blow fly, screw worm fly, grain weevil, slikworm, honeybee, non-biting midge larvae, bee moth larvae, mealworm, cockroach, larvae of Tenibrio molitor beetle, mammals such as cat, dog, horse, cow, pig, sheep, rabbit, rat, guinea pig, mice or gerbil. They can also be used to produce immunological vaccines which may be used to prevent and/or treat conditions involving hypersensitivity to allergens. This sequence conditions and an anior histocombatibility complex (MHC) class II response to
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Pred. No. 1.8e+06;
7; Mismatches 0; Indels
                                                                                                                                                                                                                                                                           Desensitizing patients to polypeptide allergens
                                                                                                                              (IMCO-) IMPERIAL COLLEGE INNOVATIONS LTD.
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                                                                                                                                                                                                                                                                                                                      Example 6; Fig 8; 117pp; English
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22.2%; F
                   99WO-GB000080.
                                                            98GB-00000445.
98GB-00020474.
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Best Local Similarity
2; Conserve
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1 MFPSTWYVA
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                                                            09-JAN-1998;
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                11-JAN-1999;
                                                                                       21-SEP-1998;
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                                                                                                                                                                              Larche M,
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(revised)
                                                                                                                                                                                                                                                                                Best Local Similarity
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Celis E,
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15-JUL-2002
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Baker DM,
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                                      Sequences AAU23815-AAU24515 represent the 103P2D6-related protein and peptide fragments of the polypeptide. 103P2D6 is not expressed in normal adult tissue but is aberrantly expressed in some foetal tissues and many cancers including tumours of the prostate, testis bladder, bone, cervix, ovary, breast, pancreas, colon and lung. The 103P2D6 polynucleotide, its related protein and also peptide fragments of the protein are therefore useful for diagnosing and treating cancer. A vector comprising a communospecifically binds to an 103P2D6-related protein, and a ribozyme capable of cleaving a polynucleotide having the 103P2D6 coding sequence, are both useful in the preparation of a composition for treating a capable of cleaving a polynucleotide having the 103P2D6 coding sequence, are both useful in the preparation of a composition for treating a containment with a cancer that expresses 103P2D6. The sequences can be used in diagnostic methods to monitor the level of 103P2D6 gene products in serum, blood, urine and tissue and to thereby detect the presence of cancerous cells
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                                                                                                                                                                                                                                                                                           Score 24; DB 4; Length 9;
Pred. No. 1.8e+06;
7; Mismatches 0; Indels
103P2D6 gene which encodes for 103P2D6-related proteins
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Kubo RT, Grey HM;
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                           Example 15; Page 89; 132pp; English.
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Best Local Similarity 22,2%;
Matches 2; Conservative
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Celis E,
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Baker DM,
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                                                                                                                                                                                                                                                                                                                                           escape mutants. Furthermore, immunosuppressive groups that may be present in whole antigens can be avoided with the use of group-based vaccines. An additional advantage of an group-based vaccine approach is the ability to combine selected groups (CTL and HTL), and further, to modify the composition of the groups, achieving, for example, enhanced immunogenicity. Accordingly, the immunosenicity. Accordingly, the immunosenicity of the rarget disease. Similar engineering of the response is not possible with traditional approaches. ABPIISOI to ABP25412 represent peptide sequences used in the exemplification of the present invention. (Updated on 11-SEP-2003 to standardise OS field)
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group-based vaccines has several advantages over traditional vaccines, particularly when compared to the use of whole antigens in vaccine compositions. There is evidence that the immune response to whole antigens is directed largely toward variable regions of the antigen, allowing for immune escape due to mutations. The groups for inclusion in an group-based vaccine may be selected from conserved regions of viral or tumour-associated antigens, which therefore reduces the likelihood of
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Kubo RT, Grey HM;
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compositions. There is evidence that the immune response to whole antigens is directed largely toward variable regions of the antigen, allowing for immune escape due to mutations. The groups for inclusion in the group-based vaccine may be selected from conserved regions of viral or tumour-associated antigens, which therefore reduces the likelihood of escape mutants. Furthermore, immunosuppressive groups that may be present in whole antigens can be avoided with the use of group-based vaccines. An additional advantage of an group-based vaccine approach is the ability to compisition of the groups (CTL and HTL), and further, to modify the immunogenicity. Accordingly, the immune response can be modulated, as appropriate, for the target disease. Similar engineering of the response is not possible with traditional approaches. Application of the groups in the exemplification of the present represent peptide sequences used in the exemplification of the present invention. (Updated on 11-SEP-2003 to standardise OS field)
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Kubo RT, Grey HM;
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(first entry)
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Celis E,
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Baker DM,
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allowing for immune escape due to mutations. The groups for inclusion in an group-based vaccine may be selected from conserved regions of viral or twuour-associated antigens, which therefore reduces the likelihood of escape mutants. Furthermore, immunosuppressive groups that may be present in whole antigens can be avoided with the use of group-based vaccines. An additional advantage of an group-based vaccine approach is the ability to combine selected groups (CTL and HTL), and further, to modify the composition of the groups, achieving, for example, enhanced immunogenicity. Accordingly, the immune response can be modulated, as appropriate, for the target disease. Similar engineering of the response is not possible with traditional approaches. ABPHISO1 to ABP25412 represent peptide sequences used in the exemplification of the present invention. (Updated on 11-SEP-2003 to standardise OS field)
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Kubo RT, C
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Celis E,
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Best Local Similarity
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Baker DM,
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              escape mutants. Furthermore, immunosuppressive groups that may be present in whole antigens can be avoided with the use of group-based vaccines. An additional advantage of an group-based vaccine approach is the ability to combine selected groups (CTL and HTL), and further, to modify the composition of the groups, achieving, for example, enhanced immunogenicity. Accordingly, the immune response can be modulated, as appropriate, for the target disease. Similar engineering of the response is not possible with traditional approaches. ABPIISOI to ABP25412 represent peptide sequences used in the exemplification of the present invention. (Updated on 11-SEP-2003 to standardise OS field)
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tumour-associated antigens, which therefore reduces the likelihood of
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                                                                                                                                                                                                                                                                           Score 24; DB 4; Length 9; Pred. No. 1.8e+06; 7; Mismatches 0; Indels
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Kubo RT, Grey HM;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABP23978 standard; peptide; 9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human immunodeficiency virus 1.
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22.2%;
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(first entry)
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Celis E,
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1 GFFPDWQNY
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Best Local Similarity
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                                                                                                                                                                                                                                      Sequence 9 AA;
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15-JUL-2002
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Baker DM,
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           additional advantage of an group-based vaccine approach is the ability to combine selected groups (CTL and HTL), and further, to modify the composition of the groups, achieving, for example, enhanced immunogenicity. Accordingly, the immune response can be modulated, as appropriate, for the target disease. Similar engineering of the response represent peptide sequences used in the exemplification of the present invention. (Updated on 11-SEP-2003 to standardise OS field)
antigens can be avoided with the use of group-based vaccines.
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                                                                                                                                                                                                                                                                                                                                                                                                                                         AAM12502 standard; peptide; 9 AA.
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Von Bergwelt- Baildon M;
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1 HFPRIWLII
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generated APC (III) that presents a peptide of a CYPIB1 in the context of a MHC complex molecule. The method is useful for treating a patient having or is at risk of having a cell that expresses CYPIB1. The method is useful for the prevention, treatment and diagnosis of cancer, e.g. melanoma, lymphoma, carcinoma, sarcoma, multiple myeloma, leukemia, and lung, ovarian, uterine, cervical, prostate, liver, colon, pancreatic and brain cancer. AAMO6905 to AAMI3566 represent CYPIB1 peptides which can bind to human leukocyte antigens (HLAs), as well as other amino acid sequence used in the exemplification of the present invention
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Pred. No. 1.8e+06;
7; Mismatches 0; Indels
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Von Bergwelt- Baildon M;
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Matches 2; Conserv
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                                                                                                                                                                                                           Sequence 9 AA;
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generated APC (III) that presents a peptide of a CYPIB1 in the context of a MHC complex molecule. The method is useful for treating a patient having or is at risk of having a cell that expresses CYPIB1. The method is useful for the prevention, treatment and diagnosis of cancer, e.g. melanoma, lymphoma, carcinoma, sarcoma, multiple myeloma, leukemia, and lung, ovarian, uterine, cervical, prostate, liver, colon, pancreatic and brain cancer. AMM05905 to AMM1356 represent CYPIB1 peptides which can bind to human leukcoçte antigens (HLAs), as well as other amino acid sequence used in the exemplification of the present invention
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Von Bergwelt- Baildon M;
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Best Local Similarity 22.2%;
Matches 2; Conservative 7
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generated APC (III) that presents a peptide of a CYPIB1 in the context of a MHC complex molecule. The method is useful for treating a patient having or is at risk of having a cell that expresses CYPIB1. The method is useful for the prevention, treatment and diagnosis of cancer, emelanoma, lymphoma, carcinoma, sarcoma, multiple myeloma, lenkemia, and lung, ovarian, uterine, cervical, prostate, liver, colon, pancreatic and brain cancer. AAMO5905 to AAMI3566 represent CYPIB1 peptides which can bind to human leukcoyte antigens (HLAs), as well as other amino acid sequence used in the exemplification of the present invention
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Pred. No. 1.8e+06;
7; Mismatches 0; Indels
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(UYBO-) UNIV BOSTON.
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Von Bergwelt- Baildon M;
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22.2%; F
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Les 2; Conservative
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Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Treating a cancer patient involves administering to patient a cytotoxic T -lymphocyte, an antigen presenting cell that activates T cells, a peptide of cytochrome P450 1B1, or a polynucleotide encoding the peptide.
generated APC (III) that presents a peptide of a CYPIB1 in the context of a MHC complex molecule. The method is useful for treating a patient having or is at risk of having a cell that expresses CYPIB1. The method is useful for the prevention, treatment and diagnosis of cancer, e.g. melanoma, lymphoma, carcinoma, sarcoma, multiple myeloma, leukemia, and lung, ovarian, uterine, cervical, prostate, liver, colon, pancreatic and brain cancer. AMONGSOS to AMMISSOS represent CYPIB1 peptides which can bind to human leukcoyte antigens (HLAs), as well as other amino acid sequence used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Cytochrome P450 1B1; CYP1B1; cancer; immunotherapy; diagnosis; HLA; human leukcoyte antigen; cytochte T-1ymphocyte; CTL; MHC; APC; major histocompatibility complex; antigen presenting cell; melanoma; lymphoma; carcinoma; multiple myeloma; leukaemia.
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                                                                                                                                                                                                                                                        100.0%; Score 24; DB 4; Length 9; 22.2%; Pred. No. 1.8e+06;
                                                                                                                                                                                                                                                                                                 0; Indels
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7; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (DAND ) DANA FARBER CANCER INST INC. (UYBO-) UNIV BOSTON.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAM08894 standard; peptide; 9 AA.
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Von Bergwelt- Baildon M;
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                                                                                                                                                                                                                                                                           22.2%;
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                                                                                                                                                                                                                                                                                                 2; Conservative
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1 VFVNQWSVN
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                                                                                                                                                                                                                 Sequence 9 AA;
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AAM08894
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generated APC (III) that presents a peptide of a CYPIB1 in the context of a MHC complex molecule. The method is useful for treating a patient having or is at risk of having a cell that expresses CYPIB1. The method is useful for the prevention, treatment and diagnosis of cancer, e.g.
                                                                                  melanoma, lymphoma, carcinoma, sarcoma, multiple myeloma, leukemia, and lung, ovarian, uterine, cervical, prostate, liver, colon, pancreatic and brain cancer. AAM05905 to AAM13666 represent CYPIBI peptides which can bind to human leukocyte antigens (HLAB), as well as other amino acid sequence used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                     Gaps
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Pred. No. 1.8e+06;
7; Mismatches 0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAM11670 standard; peptide; 9 AA.
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Von Bergwelt- Baildon M;
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                                                                                                                                                                                                                                                                           Best Local Similarity 22.2
Matches 2; Conservative
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                                                                                                                                                                                                                Sequence 9 AA;
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(UYBO-) UNIV
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Treating a cancer patient involves administering to patient a cytotoxic T -lymphocyte, an antigen presenting cell that activates T cells, a peptide of cytochrome P450 1B1, or a polynucleotide encoding the peptide.
generated APC (III) that presents a peptide of a CYPIB1 in the context of a MHC complex molecule. The method is useful for treating a patient having or is at risk of having a cell that expresses CYPIB1. The method is useful for the prevention, treatment and diagnosis of cancer, e.g. melanoma, lymphoma, carcinoma, sarcoma, multiple myeloma, leukemia, and lung, ovarian, uterine, cervical, prostate, liver, colon, pancreatic and brain cancer. AAMO5905 to AAMI3566 represent CYPIB1 peptides which can bind to human leukcoyte antigens (HLAs), as well as other amino acid sequence used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Cytochrome P450 1B1; CYP1B1; cancer; immunotherapy; diagnosis; HLA; human leukcoyte antigen; cytochic T-lymphocyte; CTL; MHC; APC; major histocompatibility complex; antigen presenting cell; melanoma; lymphoma; carcinoma; multiple myeloma; leukeemia.
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                                                                                                                                                                                                                                                ; Score 24; DB 4; Length 9;
Pred. No. 1.8e+06;
7; Mismatches 0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (DAND ) DANA FARBER CANCER INST INC. (UYBO-) UNIV BOSTON.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAM12223 standard; peptide; 9 AA.
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                                                                                                                                                                                                                                                                     22.2%;
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Best Local Similarity 22.2.,
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Sequence 9 AA;

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generated APC (III) that presents a peptide of a CYPIB1 in the context of a MHC complex molecule. The method is useful for treating a patient having or is at risk of having a cell that expresses CYPIB1. The method is useful for the prevention, treatment and diagnosis of cancer, e.g. melanoma, lymphoma, carcinoma, sarcoma, multiple myeloma, leukemia, and lung, ovarian, uterine, cervical, prostate, liver, colon, pancreatic and brain cancer. AAMO6905 to AAMI3566 represent CYPIB1 peptides which can bind to human leukocyte antigens (HLAs), as well as other amino acid sequence used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Immunogenic complex; non-pathogenic multi-component viral particle; yavelin; heat shock protein; humoral immunity; cellular immunity; anti-viral immune response; viral infection; hepatitis; influenza; mumps; HIV infection; human immunodeficiency virus; polio; tick-borne encephalitis; ebola virus infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          viral immune response in an organism, particularly as a vaccine for
preventing or ameliorating viral infections, e.g. hepatitis, influenza or
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                                                                                                                                                                                                                  Score 24; DB 4; Length 3, Pred, No. 1.8e+06;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAU80741 standard; peptide; 9 AA.
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22.2%; P
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                                                                                                                                                                                                                                                                           2; Conservative
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Best Local Similarity
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                                                                                                                                                                                                Sequence 9 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    arthritis, atherosclerosis, cancer, autoimmune diseases, bacterial and viral infections and Hodgkin's disease. The present sequence represents a targeting peptide of the invention
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                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                        immunosuppressive; anti-inflammatory; antiarthritic; antiviral; antiatherosclerotic; antidiabetic; antibacterial; diabetes mellitus; inflammatory disease; arthritis; atherosclerosis; cancer; autodimmune disease; bacterial infection; viral infection.
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                                                                                                                                                                                                                                                                                                                                                                        Targeting peptide; cancer; Hodgkin's disease; cytostatic;
100.0%; Score 24; DB 5; Length 9; 22.2%; Pred. No. 1.8e+06; ive 7; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                  Pancreatic islet targeting peptide #5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 56; Page 286; 298pp; English.
                                                                                                                                                                                                                  ABG35129 standard; peptide; 9 AA.
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17-JAN-2001; 2001US-00765101.
                      22.28;
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Matches 2, Conservative
                                          Conservative
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                                                                                1 XFXXXWXXX
  Query Match
Best Local Similarity
Matches 2; Conserv
                                                                                                                    CFWGLWPWE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200220722-A2.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14-MAR-2002.
                                                                                                                                                                                                                                                        ABG35129;
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                                                                                                                                                                              RESULT 22
ABG35129
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RESULT 23

8

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The present invention relates to a composition comprising at least one hepatitis B virus epitope. This can be used in the production of a vaccine for use in preventing or treating hepatitis B virus infection. The present sequence is a peptide described in the exemplification of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              composition for treating or preventing hepatitis B virus (HBV) on, and/or for stimulating an immune response to HBV, comprises
                                                                                                                                                                                           Hepatitis B virus; HBV; epitope; vaccine; HBV infection; hepatitis; virucide; hepatotropic; antiinflammatory.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hepatitis B virus, HBV; epitope, vaccine, HBV infection, hepatitis, virucide, hepatotropic; antiinflammatory.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Southwood S, Vitiello MA, 3rey HM, Chesnut RW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Score 24; DB 5; 22.2%; Pred. No. 1.8e+06; iive 7; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; Page 128; 228pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABJ08649 standard; peptide; 9 AA.
                                      ABJ06626 standard; peptide; 9 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hepatitis B virus epitope #2867.
                                                                                                                                                    Hepatitis B virus epitope #844.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Grey HM,
                                                                                                                                                                                                                                                                                                                                                                        08-SEP-2000; 2000WO-US024802
                                                                                                                                                                                                                                                                                                                                                                                                               08-SEP-2000; 2000WO-US024802
                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                    EPIMMUNE INC.
SETTE A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sette A, Sidney J,
Celis E, Kubo RT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HBV peptide epitope.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2002-643192/69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           : |:::|:::
1 IFFCLWVYI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 XFXXXWXXX
                                                                                                                                                                                                                                                  Hepatitis B virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hepatitis B virus.
                                                                                                                                                                                                                                                                                           WO200219986-A1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 9 AA;
                                                                                                                14-NOV-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14-NOV-2002
                                                                                                                                                                                                                                                                                                                               14-MAR-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 infection,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                invention
                                                                           ABJ06626;
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(SETT/) 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Vaccine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
RESULT 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 25
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                    ABJ06626
                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The invention comprises a method (BRASIL - Biopanning and Rapid Analysis of Selective Interactive Ligands) to obtain a targeting peptide. The BRASIL method of the invention involves: exposing a target to a phage display library in a first phase; exposing the first phase to a second phase; and separating the phase; exposing the first phase to a second chase; and separating the phase; only conditions to be separated from the remaining unbound phage in a single differential centrifugation step. When compared to conventional cell phases to be separated to substantial decrease in background. The BRASIL method is useful for cubstantial decrease in background. The BRASIL method is useful for identifying targeting peptides. The targeting peptides identified by the method of the invention are useful for treating disease states, such as: disease; inflammatory arthritis; atherosclerosis; cancer; autoimmune disease; bacterial infection; viral infection; cardiovascular disease and degenerative disease. The present maino acid sequence represents a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           o;
                                                                                                                                                                                                                                                                                                       BRASIL; targeting peptide; bacterial infection;
Biopanning and Rapid Analysis of Selective Interactive Ligands; diabetes;
inflammatory arthritis; atherosclerosis; cancer; autoimmune disease;
viral infection; cardiovascular disease; degenerative disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Identification of targeting peptides that can be used to treat diseases e.g. cancer and arthritis, by the BRASIL (Biopanning and Rapid Analysis of Selective Ligands) method comprises a single differential
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;
0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 6; Page 80; 167pp; English.
                                                                                                                                                                                                                                                                        Bone marrow targeting peptide 29.
                                                                                                                                                  ABJ04579 standard; peptide; 9 AA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    08-SEP-2000; 2000US-0231266P. 17-JAN-2001; 2001US-00765101.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             07-SEP-2001; 2001WO-US028124
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (TEXA ) UNIV TEXAS SYSTEM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Arap W, Pasqualini R;
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CFPRVWSRC 9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            centrifugation step.
                                      : | : : : | : : :
CFNRTWIGC
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Matches 2; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                           Unidentified
                                                                                                                                                                                                                                24-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14-MAR-2002.
                                                                                                                                                                                           ABJ04579;
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Livingstone BD;

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in size useful for targeting delivery to an organ or tissue, particularly for treating a disease, e.g. cancer, arthritis, diabetes, inflammatory disease, atheroscalerosis, autoimmune disease, bacterial infection, viral infection, cardiovascular disease or degenerative disease. The peptide is also useful for inducing apoptosis, particularly to a subject with inflammation or macular degeneration. Furthermore, the peptide is useful for diagnosing the disease cited above. Targeting peptides of the invention can also be used to deliver an agent to a foetus, by attaching subject. Sequences ABG60326-ABG60574 represent selective targeting peptides of the subject of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Providing, identifying or optimizing peptides for inducing cytotoxic T-lymphocytes and for treating cancer, comprises selecting conserved regions in antigenic proteins and identifying CD8+ T-cell epitopes in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The invention relates to a method for providing, identifying or/and optimising peptides which induce cytotoxic T-lymphocytes and to the uses of the obtained peptides for vaccination. The method is useful for providing, identifying and/or optimising peptides that are useful in manufacturing a pharmaceutical composition for the induction of cytotoxic T-lymphocytes, and for the prevention, treatment or diagnosis of cancer or viral infections. The invention is also used in gene therapy. The present sequence is human p53 peptide used to illustrate the method of
                                                               The invention relates to an isolated peptide of 100 amino acids or less
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human; T-lymphocyte; vaccine; viral infection; gene therapy; cancer.
                                                                                                                                                                                                                                                                                                                                                                                                           Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                      Score 24; DB 5;
Pred. No. 1.8e+06;
7; Mismatches 0;
                            Claim 22; Page 121; 317pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; Page 11; 32pp; English.
                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Scu.
22.2%; Pred
7; 1
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14-MAY-2001; 2001US-0290353P.
18-MAY-2001; 2001US-0291610P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2002-759836/82
                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                 Sequence 9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAE31317;
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                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Targeting peptides identified by phage display, useful for targeting delivery to an organ or tissue, particularly for treating a disease, e.g. cancer, inflammatory or autoimmune diseases, infections or cardiovascular disease.
                                                                                                                                                                                                                                                                                                                                                                              The present invention relates to a composition comprising at least one beparities B virus epitope. This can be used in the production of a vaccine for use in preventing or treating heparities B virus infection. The present sequence is a peptide described in the exemplification of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Targeting peptide, cancer, arthritis, diabetes, inflammatory disease, atherosclerosis, autoimmune disease, bacterial infection, apoptosis, viral infection, cardiovascular disease, degenerative disease, ischaemia, inflammation, macular degeneration, antidiabetic,
                                                                                                                                                                                                                                                     Vaccine composition for treating or preventing hepatitis B virus (HBV) infection, and/or for stimulating an immune response to HBV, comprises
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cardiovascular; immunomodulator; antibacterial; antiviral; cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                Southwood S, Vitiello MA, Livingstone BD; 3rey HM, Chesnut RW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; Score 24; DB 5; Length 9;
Pred. No. 1.8e+06;
7; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                       Disclosure; Page 174; 228pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Selective targeting peptide #192.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABG60517 standard; peptide; 9 AA.
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Similarity 22.2%; 1
2; Conservative 7;
                                                                                                                                                                    Grey HM,
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08-SEP-2000; 2000WO-US024802
                                         08-SEP-2000; 2000WO-US024802
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Arap W, Pasqualini R;
                                                                                 (EPIM-) EPIMMUNE INC. (SETT/) SETTE A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 IFFCLWVYI 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 XFXXXWXXX 9
                                                                                                                                              Sidney J,
                                                                                                                                                                                                                                                                                             HBV peptide epitope.
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                                                                                                                                                                                                            WPI; 2002-643192/69.
                                                                                                                                                                    Kubo RT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 2; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gene therapy.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Synthetic.
                                                                                                                                                Sette A,
Celis E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      invention
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Providing, identifying or optimizing peptides for inducing cytotoxic T-lymphocytes and for treating cancer, comprises selecting conserved regions in antigenic proteins and identifying CD8+ T-cell epitopes in the
                                                                                                                                                                                Human; T-lymphocyte; vaccine; viral infection; gene therapy; cancer.
      AAE31160 standard; peptide; 9 AA.
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14-MAY-2001; 2001US-0290353P.
18-MAY-2001; 2001US-0291610P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (CALL-) CALLISTOGEN AG.
                                                                                                                                      Human sp100 peptide #4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Wrede P, Walden P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2002-759836/82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
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1 SFVYVWKTW
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                                                                                                                                                                                                                                                                         WO200272627-A2.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              the invention
                                                                                                                                                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            30-JUL-2003
                                                                                             24-FEB-2003
                                                                                                                                                                                                                                                                                                                   19-SEP-2002
                                                   AAE31160;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein.
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         HID SECOND COURSE SERVICE COURSE SERVICE COURSE SERVICE COURSE SERVICE SERVICE COURSE SERVICE SERVICE SERVICE COURSE SERVICE S
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The invention relates to a method for providing, identifying or/and optimising peptides which induce cytotoxic T-lymphocytes and to the uses of the obtained peptides for vaccination. The method is useful for providing, identifying and/or optimising peptides that are useful in manufacturing a pharmaceutical composition for the induction of cytotoxic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Providing, identifying or optimizing peptides for inducing cytotoxic T-lymphocytes and for treating cancer, comprises selecting conserved regions in antigenic proteins and identifying CD8+ T-cell epitopes in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              T-lymphocytes, and for the prevention, treatment or diagnosis of cancer or viral infections. The invention is also used in gene therapy. The present sequence is human tyr2 peptide used to illustrate the method of
                                                                                                                                      Gaps
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                                                                                          Length 9;
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                                                                                                                                  Indels
                                                                                        ; Score 24; DB 5; L
Pred. No. 1.8e+06;
7; Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                   AAE31347 standard; peptide; 9 AA.
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                                                                                      100.08;
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14-MAY-2001; 2001US-0290353P.
18-MAY-2001; 2001US-0291610P.
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                                                                                                               22.2%;
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Best Local Similarity 22.2°,
Best Local Similarity
2, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                         24-FEB-2003 (first entry)
                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human tyro peptide #10.
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1 TFSDLWKLL 9
                                                            Query Match
Best Local Similarity
-hen 2; Conserve
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                                            Sequence 9 AA;
the invention
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Eichler-Mertens M,

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The invention relates to a method for providing, identifying or/and optimising peptides which induce cytotoxic T-lymphocytes and to the uses of the obtained peptides for vaccination. The method is useful for providing, identifying and/or optimising peptides that are useful in manufacturing a pharmaceutical composition for the induction of cytotoxic or Viral infections. The prevention, treatment or diagnosis of cancer or viral infections. The invention is also used in gene therapy. The present sequence is human spl00 peptide used to illustrate the method of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Targeting peptide, obesity, lipodystropathy, anorectic, antilipaemic, peptide therapy, gene therapy, infection, human immunodeficiency virus, HIV, placental delivery, teratogenic, placenta, adipose, pancreatic, beta-3 integrin, beta-5 integrin, spleen, aminopeptidase A.
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Pred. No. 1.8e+06;
                                                                                                                                                                                                                                                                                                                                                                      7; Mismatches
Disclosure; Page 8; 32pp; English.
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                                                                                                                                                                                                                                                                                                                                                                           2; Conservative
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Synthetic.
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RESULT 29 AAE31160

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The present invention relates to novel human cancer-related genes and proteins (ABZ78120-ABZ78168 and ABR01789-ABR01861). The genes and proteins are useful for eliciting a humoral or cellular immune response. The genes are useful as probes and primers for the amplification and/or detection of genes, mRNAs or their fragments, as reagents for the diagnosis and/or prognosis of cancer, as coding sequences capable of directing the expression of the protein, as tools for modulating or inhibiting the expression of genes and/or translation of transcripts, and as therapeutic agents. The proteins and peptides are useful as therapeutic, prognostic and diagnostic reagents for cancer. The present sequence is a human leukocyte antigen (HLA) peptide, used in an example
                                                                                                                                                      New composition comprising a substance that modulates the structure of proteins and polynucleotides, useful for therapeutic, prognostic and diagnostic reagents for eliciting cellular or humoral immune response in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          proteins and polynucleotides, useful for therapeutic, prognostic and diagnostic reagents for eliciting cellular or humoral immune response in
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                                           Hubert RS;
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                                           Ge w,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 24; DB 6; I 22.2%; Pred. No. 1.8e+06; ive 7; Mismatches 0;
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orrison RK, Raitano AB;
                                         Faris M,
                                                                Raitano AB;
                                                                                                                                                                                                                                                                Claim 13; Page 254; 1021pp; English.
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                                         Challita-Eid PM,
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                                       Jakobovits A, Challita-Eid
Morrison K, Morrison RK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Jakobovits A, Challita-Ei
Morrison K, Morrison RK,
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Matches 2; Conservative
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                                                                                                            WPI; 2003-075555/07.
(AGEN-) AGENSYS INC.
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1 SFFCVWARL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              from the invention
                                                                                                                                                                                                                      cancer patients.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present invention describes a method for treating obesity or a selective for adipose tissue; (a) obtaining a targeting peptide selective for adipose tissue; (b) attaching the peptide to a therapeutic agent to form a complex; (c) administering the complex to a subject; and dipose targeting peptides have anorectic and antilipaemic activities, and can be used in peptides have anorectic and antilipaemic activities, and can be used in peptide and gene therapy. The method is used for treating obesity or a lipodystropathy that is related to infection with human immunodeficiency virus (HIV). The peptides used in the method can also be used for targeting delivery to an organ or tissue, such as placental delivery. A receptor that binds to a placenta targeting peptide is used for targeting delivery to an organ or tissue, such as placental delivery. A receptor that binds to a placenta targeting peptide is used to screen compounds for teartogenic activity. ABRS6806 to ABRS6827 and ACC79106 to ACC79111 represent sequences used in the exemplification of the present invention
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                                                                                                                                                                                                                                                                                                                            Treating obesity or a lipodystropathy comprises obtaining a targeting peptide selective for adipose tissue, attaching the peptide to a therapeutic agent to form a complex, and administering the complex to
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                                                                                                                                                                                                                                                                                                                                                                                                                                             Example 9; Page 114; 247pp; English
                                                                                                                                                                                                                                           Arap W, Kolonin MG;
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10-APR-2001; 2001US-0283112P.
25-APR-2001; 2001US-0286630P.
                                                                                                       30-AUG-2002; 2002WO-US027836
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nes 2; Conserv
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                                                                                                                                                                                                                                           Pasqualini R,
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Matches
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**ABR1421** 

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directing the expression of the protein; as tools for modulating or inhibiting the expression of genes and/or translation of transcripts, and as therapeutic agents. The proteins and peptides are useful as therapeutic, prognostic and diagnostic reagents for cancer. The present sequence is a human leukocyte antigen (HLA) peptide, used in an example
                                                                                                   Score 24; DB 6; Lengu...
-4 No. 1.8e+06;
0; Indels
                                                                                                                                                                                                                                                                                                                                                                                          vaccine; cancer; immune response; HLA;
                                                                                                                                                                                                                                                                                                                                                               Human cancer-related protein 156P5C12 HLA peptide #755.
                                                                                                                  100.0%; Score 22.2%; Pred. No. 1.86+v
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Raitano AB;
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10-APR-2001; 2001US-0283112P.
25-APR-2001; 2001US-0286630P.
                                                                                                                                                                                                                                                                                                                                  (first entry)
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                                                                                                                         Query Match 100.
Best Local Similarity 22.2
Matches 2; Conservative
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human leukocyte antigen.
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1 SFFCVWARL 9
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                                                    The present invention relates to novel human cancer-related genes and proteins (AB278120-AB278168 and ABR01789-ABR01861). The genes and proteins are useful for eliciting a humanal or cellular immune response. The genes are useful a probes and primers for the amplification and/or detection of genes, mRNAs or their fragments, as reagents for the adjaposis and/or prognosis of cancer, as coding sequences capable of directing the expression of the protein, as tools for modulating or inhibiting the expression of genes and/or translation of transcripts, and as therapeutic agents. The proteins and peptides are useful as therapeutic, prognostic and diagnostic reagents for cancer. The present sequence is a human leukocyte antigen (HLA) peptide, used in an example
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                                                                                                                                                                                                                                                 Score 24; DB 6; Lengtn 5, Pred. No. 1.8e+06;
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human leukocyte antigen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human cancer-related protein 156P5C12 HLA peptide #1399.
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Morrison RK, Raitano AB;
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                            Claim 13; Page 246; 1021pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                   ABR14464 standard; peptide; 9 AA.
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25-APR-2001; 2001US-0286630P.
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Matches 2; Conservative
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    cancer patients.
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                                                                                                                                                                                                                                     Sequence 9 AA;
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Morrison K,
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                                                                                                                                                                                                                                                                                                                                                                                                                                               ABR14464;
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proteins (ABZ78120-ABZ78168 and ABR01789-ABR01861). The genes and proteins are useful for eliciting a humoral or cellular immune response. The genes are useful as probes and primers for the amplification and/or detection of genes, mRNAs or their fragments, as reagents for the diagnosis and/or prognosis of cancer, as coding sequences capable of directing the expression of the protein, as tools for modulating or inhibiting the expression of genes and/or translation of transcripts, and as therapeutic agents. The proteins and peptides are useful as therapeutic, prognostic and diagnostic reagents for cancer. The present sequence is a human leukocyte antigen (HLA) peptide, used in an example
New composition comprising a substance that modulates the structure of proteins and polynucleotides, useful for therapeutic, prognostic and diagnostic reagents for eliciting cellular or humoral immune response in cancer patients.
                                                                                                                                                                                                                                                                                                                                                                                                                             The present invention relates to novel human cancer-related genes and
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Hubert

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The present invention relates to novel human cancer-related genes and proteins (ABZ78120-ABZ78168 and ABR01789-ABR01861). The genes and proteins are useful for aliciting a humoral or callular immune response. The genes are useful as probes and primers for the amplification and/or detection of genes, mRNAs or their fragments, as reagents for the diagnosis and/or prognosis of cancer, as coding sequences capable of directing the expression of the protein, as tools for modulating or inhibiting the expression of genes and/or translation of transcripts, and as therapeutic genes and or translation of transcripts, and therapeutic, prognostic and diagnostic reagents for cancer. The present sequence is a human leukocyte antigen (HLA) peptide, used in an example from the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New composition comprising a substance that modulates the structure of proteins and polynucleotides, useful for therapeutic, prognostic and diagnostic reagents for eliciting cellular or humoral immune response in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ge W, Hubert RS;
                                                                                                                                                                    Human; cytostatic; vaccine; cancer; immune response; HLA; human leukocyte antigen.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human cancer-related protein 156P5C12 HLA peptide #901.
                                                                                                                              Human cancer-related protein 156P5C12 HLA peptide #380.
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7; Mismatches
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    ABR13445 standard; peptide; 9 AA.
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10-APR-2001; 2001US-0283112P.
25-APR-2001; 2001US-0286630P.
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                                            ABR13445;
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ABR13966
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New composition comprising a substance that modulates the structure of proteins and polynucleotides, useful for therapeutic, prognostic and diagnostic reagents for eliciting cellular or humoral immune response in cancer patients.
                       Gaps
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                                                                                                                                                                                                                                                                                                                                                                       Human; cytostatic; vaccine; cancer; immune response; HLA; human leukocyte antigen.
                     Indels
                                                                                                                                                                                                                                                                                                                                  Human cancer-related protein 156P5C12 HLA peptide #953.
  Pred. No. 1.8e+06;
7; Mismatches 0;
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                                                                                                                                                                                                      ABR14018 standard; peptide; 9 AA
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10-APR-2001; 2001US-0283112P.
25-APR-2001; 2001US-0286630P.
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1 LFPALWFLA 9
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1 LFPALWFLA 9
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Similarity
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The present invention relates to novel human cancer-related genes and proteins (ABZ78120-ABZ78168 and ABR01789-ABR01861). The genes and proteins are useful for eliciting a humoral or cellular immune response. The genes are useful as probes and primers for the amplification and/or detection of genes, mRNAs or their fragments, as reagents for the diagnosis and/or prognosis of cancer, as coding sequences capable of directing the expression of the protein, as tools for modulating or inhibiting the expression of genes and/or translation of transcripts, and as therapeutic agents. The proteins and peptides are useful as therapeutic, prognostic and diagnostic reagents for cancer. The present sequence is a human leukocyte antigen (HLA) peptide, used in an example
                                                                                                                                                                                          New composition comprising a substance that modulates the structure of proteins and polynucleotides, useful for therapeutic, prognostic and diagnostic reagents for eliciting cellular or humoral immune response in
                                                                                                  Hubert RS;
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Pred. No. 1.8e+06;
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                                                                                                Challita-Eid PM, Faris M,
                                                                                                                  Morrison RK, Raitano AB;
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                                                                                                                                                                                                                                                                                      Claim 13; Page 153; 1021pp; English.
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10-APR-2001; 2001US-0283112P. 25-APR-2001; 2001US-0286630P.
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10-APR-2001; 2001US-0283112P.
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human leukocyte antigen
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                                                          (AGEN-) AGENSYS INC
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                                                                                              Jakobovits A,
Morrison K, N
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Pred. No. 1.8e+06;
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human leukocyte antigen.
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                                                                                                                                                                                                                                                                                        Faris M,
                                                                                                                                                                                                                                                                                                        Raitano AB;
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                                                                                                                                                                10-APR-2001; 2001US-0282739P.
10-APR-2001; 2001US-0283112P.
25-APR-2001; 2001US-0286630P.
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                                                  WO200283921-A2.
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                                                                                                                                                                                                                                                                                  Jakobovits A,
              Homo sapiens.
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                                                                                        24-OCT-2002
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                                                                                                                                     The present invention relates to novel human cancer-related genes and proteins (ABZ79120-ABZ78168 and ABR01789-ABR01661). The genes and proteins are useful for eliciting a humonral or cellular immune response. The genes are useful as probes and primers for the amplification and/or detection of genes, mRNAs or their fragments, as reagents for the adjagnosis and/or prognosis of cancer, as coding sequences capable of directing the expression of the protein, as tools for modulating or inhibiting the expression of genes and/or translation of transcripts, as therapeutic, prognostic and diagnostic reagents for cancer. The present sequence is a human leukocyte antigen (HLA) peptide, used in an example
New composition comprising a substance that modulates the structure of proteins and polynucleotides, useful for therapeutic, prognostic and diagnostic reagents for eliciting cellular or humoral immune response in cancer patients.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The invention comprises the amino acid and coding sequence of a 184PIE2 protein. The DNA and protein sequences of the invention are useful for diagnosing, prognosing, preventing and/or treating cancer. The 184PIE2 DNA and protein sequences may also be used to elicit a humoral or a cellular immune response in patients and in monitoring genetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New 184P1E2 polynucleotide encoding a 184P1E2 protein, useful for diagnosing, prognosing, preventing or treating cancer, in eliciting an immune response, and in chromosome mapping.
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                                                                                                       Claim 13; Page 250; 1021pp; English
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Morrison RK, Ge W, Jakobovits A;
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abnormalities. Antibodies raised against the 184PIE2 proteins may be used in active or passive immunisation. The present amino acid sequence represents a peptide that is used in the exemplification of the invention
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6 4 US-09-009-953-39 Sequence 39 6 4 US-09-009-953-230 Sequence 23 6 4 US-09-458-745-1 Sequence 11, 6 4 US-09-310-914A-11 Sequence 11 6 4 US-09-081-975-23 6 4 US-09-790-230-51 Sequence 23 6 4 US-09-790-230-51 Sequence 51 6 4 US-09-690-454-88 Sequence 30 6 4 US-09-690-454-88 Sequence 30	6 4 US-09-170-496D-285 Sequence 28 (4 US-09-246-013-72 Sequence 72 (4 US-09-246-0191-89) Sequence 72 (6 4 US-09-844-134-587 Sequence 58 (6 4 US-09-841-345-4 Sequence 26 4 US-09-541-345-37 Sequence 35 (6 4 US-09-541-345-37 Sequence 38 (6 4 US-09-541-345-39)	6 4 US-09-541-345-40 Sequence 40, 6 4 US-09-541-345-41 Sequence 42, 6 4 US-09-541-345-43 Sequence 42, 6 4 US-09-541-345-43 Sequence 43, 6 4 US-09-541-345-45 Sequence 44, 6 4 US-09-541-345-47 Sequence 46, 6 4 US-09-541-345-47 Sequence 50, 6 4 US-09-541-345-50 Sequence 50, 6 4 US-09-541-345-50 Sequence 51, 6 4 US-09-541-345-50 Sequence 51, 6 4 US-09-541-345-51 Sequence 51, 6 4 US-09-541-345-52 Sequence 52, 6 4 US-09-541-345-52 Sequence 53, 6 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5	6 4 US-09-541-345-55 Sequence 55, 6 4 US-09-541-345-56 Sequence 55, 6 4 US-09-541-345-56 Sequence 57, 6 4 US-09-541-345-58 Sequence 57, 6 4 US-09-541-345-59 Sequence 51, 6 4 US-09-541-345-61 Sequence 61, 6 4 US-09-541-345-62 Sequence 64, 6 4 US-09-541-345-68 Sequence 64, 6 4 US-09-541-345-68 Sequence 64, 6 4 US-09-541-345-69 Sequence 71, 6 4 US-09-541-345-79 Sequence 73, 6 4 US-09-541-345-79 Sequence 74, 6 4 US-09-541-345-79 Sequence 75, 6 4 US	241.345-81 Sequence 81. 241.345-83 Sequence 83. 541.345-84 Sequence 85. 541.345-85 Sequence 85. 541.345-89 Sequence 86. 541.345-91 Sequence 96. 541.345-96 Sequence 96. 541.345-96 Sequence 96. 541.345-96 Sequence 96. 541.345-100 Sequence 100. 541.345-104 Sequence 100. 541.345-105 Sequence 100. 541.345-106 Sequence 100. 561.345-106 Sequence 100.
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Sequence 151, App Sequence 152, App Sequence 159, App Sequence 160, App Sequence 54, App	57,58	53	37	- 4	48	9,0	1 4 5	54	57	8 2	100	12(15	J F	16.	٦,	~ .	, r	17	17	294	ž.	'n	3,	31,	17	11,	458	54,	58,	59	sequence 101, App Sequence 150, App	153	152	16(22,7	1 4	57,	y o	101	150	15.	12	16(7,0	5.4	57,	28	9,0	equence 150
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Sequence 249, App Sequence 249, App Sequence 195, App Sequence 199, App Sequence 224, App	e 193	e 114	555 56	6.4	e 23(9 24.	116	, 8	13,	0 K	9 36(e 118	9 11E	9 6	, 6 6	6 6 6 6	9 6	ο α ο ο	9	6	e 291	6 6	6 54.	5,4	59,	101	e 151	e 152	e 159	65,	e 54,	. 8 c	e 59,	e 150	e 151	155	e 160	6 5 5 4 5 7 4 5 7 4 5 7 4 5 7 4 5 7 4 5 7 5 7	6 59',	equence 59,	equence 101	Sequence 150, App Sequence 151, App	equence 152	equence 159	equence 160	equence 54,	equence 57,	equence 58,	ce 59,	equence 150
US-09-49U-070A-249 US-09-49U-153-249 US-09-620-091-195 US-09-453-840-199 US-09-453-840-224	US-09-865-989-199 US-09-865-989-224	US-09-350-841A-1147 US-09-453-834-199	US-09-453-834-224	US-09-695-437A-64	US-09-774-639-236	US-US-490-324-249 US-08-537-400-35	US-08-974-549A-118	US-09-252-149B-8	US-09-081-975-13	US-03-461-323-231 US-09-489-847-359	US-09-489-847-360	US-09-402-181B-118	US-UY-721-456-118 HS-10-012-542-291	US-09-794-529B-9	US-09-794-517A-9	US-09-011-645E-9	110-00-132-3	US-09-680-806A-9	US-09-552-868-9	US-09-636-295-9	US-10-115-123-291 US-09-774-639-342	US-09-732-384-7	US-08-311-611A-54	US-08-311-611A-57 US-08-311-611A-58	US-08-311-611A-59	US-08-311-611A-101	US-08-311-611A-150 US-08-311-611A-151	US-08-311-611A-152	US-08-311-611A-159 US-08-311-611A-160	US-08-218-025A-65	US-08-372-783-54	US-08-372-783-58	US-08-372-783-59	US-08-372-783-150	US-08-372-783-151	US-08-372-783-159	US-08-372-783-160	US-08-372-105-54	US-08-372-105-59 US-08-372-105-58	US-08-372-105-59	US-08-372-105-101	US-08-3/2-103-150 US-08-372-105-151	US-08-372-105-152	US-08-372-105-159	US-US-3/Z-1US-16U US-08-321-625-36	US-08-306-473A-54	US-08-306-473A-57	US-08-306-473A-58	US-US-306-4/3A-59 US-08-306-473A-101	US-08-306-473A-150
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equence 155 equence 155 equence 166 equence 36 equence 57, equence 63, equence 63,	equence 1 equence 4 equence 4 equence 4 equence 4 equence 1 equence 1 equence 7 equence 7 equence 7 equence 2 equence 2 equence 8	equence 11. equence 13. equence 13. equence 10. equence 10. equence 11. equence 11. equence 12. equence 15. equence 16. equence 16.	equence 26, equence 31, equence 33, equence 33, equence 33, equence 11, equence 11, equence 15, equence 15, equence 16, equence 16, equence 16, equence 36, equenc	Sequence 11, Appl Sequence 13, Appl Sequence 17, Appl Sequence 19, Appl Sequence 19, Appl Sequence 11, Appl Sequence 12, Appl Sequence 56, Appl Sequence 56, Appl Sequence 61,
US-09-224-480-151 US-09-224-480-152 US-09-224-480-159 US-09-224-480-160 US-09-093-539-54 US-08-093-539-54 US-08-927-597-77 US-08-927-597-89	US-09-400-208B-1 US-09-217-352-7 US-09-217-352-49 US-09-217-352-49 US-09-217-352-49 US-09-217-352-120 US-09-217-352-120 US-08-217-352-148 US-08-217-352-148 US-09-217-352-148 US-09-217-352-148 US-09-211-352-148 US-09-201-345-294 US-09-201-345-458 US-08-403-253A-8	US-08-630-052-11 US-09-155-613A-6 US-08-121-105B-13 US-09-081-975-18 US-09-081-975-10 US-09-081-975-14 US-09-081-975-14 US-09-081-975-15 US-09-081-975-15 US-09-081-975-15 US-09-081-975-15 US-09-081-975-16 US-09-081-975-18 US-09-081-975-18 US-09-081-975-18 US-09-081-975-19 US-09-081-975-19 US-09-081-975-19 US-09-081-975-19 US-09-081-975-19 US-09-081-975-19 US-09-081-975-19	US-09-342-673-26 US-09-342-673-31 US-08-435-816A-8 US-08-635-886C-33 US-08-974-690C-33 US-08-974-690C-33 US-09-794-529B-11 US-09-794-529B-15 US-09-794-529B-19 US-09-794-74-36 US-09-750-754-36	US-09-794-517A-13 US-09-794-517A-13 US-09-794-517A-15 US-09-794-517A-19 US-09-794-517A-19 US-09-794-517A-19 US-09-794-517A-19 US-09-794-517A-19 US-09-794-517A-19 US-09-794-65E-15 US-09-794-68-19 US-09-794-68-19 US-09-794-68-19 US-09-794-68-19 US-09-689-097-56 US-09-689-097-60 US-09-689-097-61 US-09-689-097-61 US-09-689-097-61 US-09-689-097-61 US-09-689-097-61 US-09-689-097-61
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-239-043D-773 Sequence 777. 5620-091-484 Sequence 48. -680-806A-4 Sequence 48. 1-424-550B-252 Sequence 255.	4 US-09-552-868-4 Sequence 4, 4 US-09-636-295-4 Semience 4.	4 US-09-908-322-83 Sequence 83	5 PCT-US95-04018-71 Sequence 71 6 5514646-28 Datent No. 5	6 5514646-28 Patent No. 5	1 US-08-350-884-5 Sequence 5, 1 HS-08-350-884-8 Semience 8	1 US-08-350-884-11 Sequence 11	1 US-08-350-884-14 Sequence 14	1 US-08-709-173-5 Sequence 5,	1 US-08-709-173-8 Sequence 8,	1 US-08-709-173-14 Sequence 14	1 US-08-615-181-30 Sequence 30	1 US-08-638-911A-12 Sequence 12	1 US-U8-638-911A-15 Sequence 15	1 US-08-638-911A-21 Semience 20	2 US-08-417-174-77 Sequence 77	2 US-08-709-177-5 Sequence 5,	2 US-08-709-177-8 Sequence 8,	2 US-08-709-177-11 Sequence 11	2 US-08-709-177-14 Sequence 14	3 US-08-396-385-7 Sequence 7,	3 US-09-267-439-77 Sequence 77	3 US-09-249-272-3 Sequence 3,	3 US-09-287-221-7 Sequence 7,	4 US-09-677-575-29 Sequence 29	4 US-09-764-304-12 Sequence 12	4 US-09-073-138-77 Sequence 77	4 US-09-771-415-16 Sequence 16	4 US-09-239-043D-93 Sequence 93	4 US-09-239-043D-906 Sequence 90	4 US-09-239-043D-1902 Sequence 19	4 US-09-239-043D-2374 Sequence 23	4 US-09-870-089B-7 Sequence 7.	9 4 US-09-870-089B-9 Sequence 9,	0 1 US-08-221-580-2 Sequence 2,	0 1 US-08-208-886C-83 Sequence 83	0 1 US-08-433-318A-134 Sequence 13	0 1 US-08-433-318A-135 Sequence 13	0 1 US-US-433-318A-136 Sequence 130	0 1 US-08-433-318A-138 Sequence 13	0 1 US-08-433-318A-139 Sequence 13	0 1 US-08-433-318A-140 Sequence 140 0 1 US-08-433-318A-141 Semience 14	0 1 US-08-433-318A-142 Sequence 14:	0 1 US-08-433-318A-143 Sequence 14:	0 1 US-08-433-318A-144 Sequence 14	0 I US-08-433-318A-145 Sequence 14:	0 1 US-08-433-318A-147 Sequence 14	0 1 US-08-433-318A-148 Sequence 14	0 1 US-08-433-318A-149 Sequence 14	0 1 US-08-277-660A-7 Sequence 7,	0 I US-U8-Z//-55UA-8 Sequence 5,	0 1 US-08-744-89 Sequence 89	0 1 US-08-424-957-11 Sequence 11	0 1 US-08-424-957-12 Sequence 12	0 1 US-08-469-557-68 Sequence 68
4 US-09-239-043D-773 Sequence 777 4 US-09-620-091-484 Sequence 48 4 US-09-680-806A-4 4 US-08-424-550B-252 Sequence 255	95.8 8 4 US-09-552-868-4 Sequence 4, 95.8 8 4 US-09-636-295-4 Semience 4.	95.8 8 4 US-09-908-322-83 Sequence 83.	95.8 8 5 PCT-US95-04018-71 Sequence 71. 95.8 8 6 5514646-28 Patent NO 5	95.8 8 6 5514646-28 Patent No. 5	95.8 9 1 US-08-350-884-5 Sequence 5, 95.8 9 1 HS-08-350-884-8	95.8 9 1 US-08-350-884-11 Sequence 11	95.8 9 1 US-08-350-884-14 Sequence 14	95.8 9 1 US-08-709-173-5 Sequence 5,	95.8 9 1 US-08-709-173-8 Sequence 8,	95.8 9 1 US-08-709-173-14 Sequence 14	95.8 9 1 US-08-615-181-30 Sequence 30	95.8 9 1 US-08-638-911A-12 Sequence 12	95.8 9 1 US-U8-638-9118-15 Sequence 15	95.8 9 1 US-08-638-911A-21 Segmence 21	95.8 9 2 US-08-417-174-77 Sequence 77,	95.8 9 2 US-08-709-177-5 Sequence 5,	95.8 9 2 US-08-709-177-8 Sequence 8,	95.8 9 2 US-08-709-177-11 Sequence 11	95.8 9 2 US-08-709-177-14 Sequence 14	95.8 9 3 US-08-396-385-7 Sequence 7,	95.8 9 3 US-09-267-439-77 Sequence 77	95.8 9 3 US-09-249-272-3 Sequence 3,	95.8 9 3 US-09-287-221-7 Sequence 7,	95.8 9 4 US-09-677-575-29 Sequence 29	95.8 9 4 US-09-725-3228-12 Sequence 12	95.8 9 4 US-09-073-138-77 Sequence 77,	95.8 9 4 US-09-771-415-16 Sequence 16	95.8 9 4 US-09-239-043D-93 Sequence 93	95.8 9 4 US-09-239-043D-906 Sequence 900	95.8 9 4 US-09-239-043D-1902 Sequence 190	95.8 9 4 US-09-239-043D-2374 Sequence 23	95.8 9 4 US-09-870-089B-7 Sequence 7.	95.8 9 4 US-09-870-089B-9 Sequence 9,	95.8 10 1 US-08-221-580-2 Sequence 2,	95.8 10 1 US-08-208-886C-83 Sequence 83	95.8 10 1 US-08-433-318A-134 Sequence 13	95.8 10 1 US-08-433-318A-135 Sequence 13:	45.8 10 1 13.08-433-318A-130 Sequence 13.	95.8 10 1 US-08-433-318A-138 Sequence 13	95.8 10 1 US-08-433-318A-139 Sequence 13	95.8 10 1 US-08-433-318A-140 Sequence 140	95.8 10 1 US-08-433-318A-142 Sequence 14:	95.8 10 1 US-08-433-318A-143 Sequence 14:	95.8 10 1 US-08-433-318A-144 Sequence 14	95.8 10 1 115-08-433-318A-145 Sequence 14:	95.8 10 1 US-08-433-318A-147 Sequence 14	95.8 10 1 US-08-433-318A-148 Sequence 14	95.8 10 1 US-08-433-318A-149 Sequence 14	95.8 10 1 US-08-277-660A-7 Sequence 7,	95.8 IO 1 US-US-Z//-000A-8 Sequence 8,	95.8 10 1 US-08-704-744-89 Sequence 89	95.8 10 1 US-08-424-957-11 Sequence 11	95.8 10 1 US-08-424-957-12 Sequence 12	95.8 10 1 US-08-469-557-68 Sequence 68

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Gaps

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| Patent No. 6663103.
| GENERAL INPORMATION:
| APPLICANT: Sette, Alessandro
| APPLICANT: Sette, Alessandro
| APPLICANT: Sette, Alessandro
| APPLICANT: Siday John
| APPLICANT: Siday John
| APPLICANT: Siday John
| APPLICANT: Siday John
| APPLICANT: Mivingenon, Brian D. APPLICANT: Mivingenon, Brian D. APPLICANT: Chemut. Robert
| APPLICANT:
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                                                                                                                                                                                                                                                                                                                100.0%; 22.2%; 1
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Best Local Similarity 22.2
Local 2; Conservative
SEQUENCE CHARACTERISTICS:
LENGTH: 9 amino acids
TYPE: amino acid
STRANDEDNESS: single
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Matches 2; Conservative
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MOLECULE TYPE: peptide

US-08-159-339A-985
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US-09-239-043D-774
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette COMPUTER: Diskette CAMPUTER: Disket
                            US-08-922-048-174
US-08-922-048-174
US-08-922-048-175
US-08-922-048-176
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US-08-922-048-180
US-08-18-18-180
US-09-111-681C-121
US-09-111-681C-121
US-09-111-681C-122
US-09-111-681C-123
US-09-111-681C-123
US-09-111-681C-123
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RESULT 1

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Gaps

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Harness, Dickey & Pierce, P.L.C.
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MOLECULE TYPE: peptide
US-08-306-546C-24
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2 VFFYPWKPM 10
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ADDRESSEE:
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US-08-242-678D-5
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APPLICANT: Jones, Margaret
APPLICANT: Chen, Hong
APPLICANT: Cavanagh, Kevin
TITLE OF INVENTION: Bovine Beta-Mannosidase Gene and Methods
TITLE OF INVENTION: of Use
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 24; DB 4; Length 9; 22.2%; Pred. No. 4.18+05; tive 7; Mismatches 0; Indels
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                                           Sequence 2028, Application US/09239043D Patent No. 6689363 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 24, Application US/08306546C
Patent No. 5605797
GENERAL INFORMATION:
                                                                                                                    Vitiello, Maria A.
Livingston, Brian D.
Celis, Esteban
Kubo, Ralph T.
Grey, Howard M.
Chesnut, Robert
Epimmune Inc.
                                                                                   APPLICANT: Sette, Alessandro
APPLICANT: Sidney John
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 100.
Best Local Similarity 22.2
Matches 2; Conservative
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CORRESPONDENCE ADDRESS:
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Patent No. 5760000
GENERAL INFORMATION:
TITLE OF INVENTION: GNRH AND GNRH ANALOGS
TITLE OF INVENTION: GNRH AND GNRH ANALOGS
NUMBER OF SEQUENCES: 12
CORRESPONDENCE ADDRESS:
ADDRESSEE: BUNNS, DOANE, SWECKER & MATHIS
STREET: P.O. Box 1404
CITY: Alexandria
COUNTRY: United States
ZIP: 22313-1404
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Pred. No. 2.1e+03;
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SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/306,546C
FILING DATE: September 15, 1994
CLASSIFICATION: 435
ATTONNEY/AGENT INFORMATION:
NAME: Smith Deann F.
REGISTRATION NUMBER: 36,683
REFERENCE/POCKET NUMBER: 6550-00003
TELECOMMUNICATION INFORMATION:
TELEPHONE: (810)641-1600
INFORMATION FOR SEQ ID NO: 24:
SEQUENCE CHARACTERISTICS:
LENGTH: 10 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Comparible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/242,678D
FILING DATE: 13-MAY-1994
CLASSIFICATION: 514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 100.0%; Score 24; DE
Best Local Similarity 22.2%; Pred. No. 2.1e
Matches 2; Conservative 7; Mismatches
                               CITY: Bloomfield Hills
STATE: Michigan
COUNTRY: USA
ZIP: 48303
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTORNEY AGENT INFO STATEMENT ON THE STATEMENT OF STATEMENT ON STATEMENT OF STATEME
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STREET: P.O. Box 828
CITY: Bloomfield Hills
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Sequence 24, Application US/08530524A

Sequence 24, Application US/08530524A

Patent No. 5837836

GENERAL INFORMATION:

APPLICANT: Friedrici, Karen
APPLICANT: Cavanagh, Kevin
APPLICANT: Cavanagh, Northe Beta-Mannosidase Gene and Methods

TITLE OF INVENTION: of Use
NUMBER OF SEQUENCES: 28

CORRESPONDENCE ADDRESS:
ADDRESSEE: Harness, Dickey & Pierce, P.L.C.

STREET: P.O. Box 828

COUNTRY: USA

COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
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MEDIUM TYPE: Riopyy disk
COMPUTER: IBM PC compatible
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/530,524A
FILING DATE: September 19, 1995
CLASSIFICATION: 536
ATTORNEY/AGENT INFORMATION:
NAME: Smith, Deann F.
REGISTRATION NUMBER: 36,683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LOCATION: 5
OTHER INFORMATION: /note= "Xaa = Gln or Ala"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LOCATION: 6
OTHER INFORMATION: /note= "Xaa = Asp or Ala"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ) LOCATION: 9
; OTHER INFORMATION: /note= "Xaa = His or Pro"
US-08-487-568-88
                                                                                                                                                                                                                                                                                                                                                                                                                    LOCATION: 1
OTHER INFORMATION: /note= "Xaa = Lys or
OTHER INFORMATION: alpha-N-acetyl-lysine"
                                                                              015280-023310
                     NAME: Dow, Karen B.
REGIGTRATION UNDRER: 29 684
REFERENCE/DOCKET NUMBER: 01521
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 326-2400
TELEFAX: (415) 326-2422
INFORMATION FOR SEQ ID NO: 88:
SEQUENCE CHARACTERISTICS:
LENGTH: 10 amino acids
TYPE: amino acids
TYPE: amino acids
STRANDEDNESS:
  ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
NAME/KEY: Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: Modified-site LOCATION: 9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY: Modified-site
                                                                                                                                                                                                                                                                                                               TOPOLOGY: linear
MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        : |: | | | : | :
2 KFKXXWSXW 10
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US-08-530-524A-24
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APPLICANT: Roberts, David D.
APPLICANT: Browning, Philip J.
APPLICANT: Browning, Philip J.
APPLICANT: Bryant, Joseph L.
APPLICANT: Inman, John K.
APPLICANT: Inman, John K.
APPLICANT: Krutzsch, Henry C.
APPLICANT: Krutzsch, Henry C.
APPLICANT: Grow, Nenghua
TITLE OF INVENTION: from the Type-I Repeats of Human Trombospondin and
TITLE OF INVENTION: Conjugates Thereof
NUMBER OF SEQUENCES: 113
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                               NAME/KEY: Modified-site
LOCATION: 1
OTHER INFORMATION: /label= Aal
OTHER INFORMATION: /note= "Aal is D-AA, and is PYROGLUTAMIC ACID"
FEATURE:
NAME/KEY: Modified-site
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Best Local Similarity 33.3%; Pred. No. 2.18+03;
Matches 3; Conservative 6; Mismatches 0; Indels
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ZIP: 94105-1492

ZIP: 94105-1492

COMPUTER READBLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PAtentin Release #1.0, Version #1.30

CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/487,568
FILING DATE: 07-JUN-1995
CLASSIFICATION: 514
PRIOR APPLICATION NUMBER: US 08/215,085
FILING DATE: 21-MAR-1994
PRIOR APPLICATION NUMBER: US 08/215,085
FILING DATE: 06-DEC-1991
FILING DATE: 06-DEC-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADDRESSEE: Townsend and Townsend and Crew STREET: One Market Plaza, Steuart Street Tower CITY: San Francisco STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LOCATION: 6
OTHER INFORMATION: /label= AA6
OTHER INFORMATION: /note= "AA6 is D-TRP"
                                                                                                                                                                                                                                                                                                                                     OTHER INFORMATION: /label= AA2
OTHER INFORMATION: /note= "AA2 is D-AA"
FBATURE:
NAME/KEY: Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                            LOCATION: 3
OTHER INFORMATION: /label= AA3
OTHER INFORMATION: /note= "AA3 is D-AA"
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Patent No. 5770563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY: Modified-site
10 amino acida
                     TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                 MOLECULE TYPE: protein FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 XFXXXWXXX 9
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1 XFWSYWLRP 9
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US-08-487-568-88
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Gaps

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                                         US-08-318-157B-25
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US-08-806-378B-3
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                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 17, Application US/08370909
Patent No. 5843648
GENERAL INFORMATION:
APPLICANT: ROBEINS, PAUL F.; ROSENBERG,
APPLICANT: STEVEN A.
TITLE OF INVENTION: DIS AND TYROSINASE
TITLE OF INVENTION: MELANOMA ANTIGENS AND THEIR USE IN DIAGNOSTIC
TITLE OF INVENTION: AND THERAPEUTIC METHODS
NUMBER OF SEQUENCES: 23
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REFERENCE/DOCKET NUMBER: 6550-00003DVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: ASCII
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/370,909
FILING DATE: 10-JAN-1995
CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
NAME: CAROL M. GRUPPI
REGISTRATION NUMBER: 37,341
REFERENCE/DOCKET NUMBER: 2026-4155
TELECOMMUNICATION INFORMATION:
TELECHAN: (212) 758-4800
TELEFAX: (212) 751-6849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
ADDRESSEE: MORGAN & FINNEGAN, L.L.P.
STREET: 345 PARK AVENUE
CITY: NEW YORK
STATE: NEW YORK
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ZIP: 10154
COMPUTER READABLE FORM:
MEDIUM TYPE: PLOPPY DISK
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
           TELECOMMUNICATION INFORMATION:
TELEPHONE: (810)641.1600
INFORMATION: 0270
INFORMATION: 24:
SEQUENCE CHARACTERISTICS:
LENTH: 10 amino acids
                                                                                                                                                                                                                           100.0%;
22.2%; P
                                                                                                                                                                                                                     Query Match
Best Local Similarity 22.2
Matches 2; Conservative
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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                                                                                                                                        TOPOLOGY: linear
MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; MOLECULE TYPE: PEPTIDE US-08-370-909-17
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2 VFFYPWKPM 10
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1 LFLLRWEQE 9
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                                                                                                                             amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Matches 2; Conserv
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Gequence 3, Application US/08806378B
Patent No. 5994308
GENERAL INFORMATION:
APPLICANT: Lawyer M.D., Carl H
APPLICANT: Lawyer M.D., Carl H
TITLE OF INVENTION: BROAD SPECTRUM ANTIMICROBIAL
TITLE OF INVENTION: PEPTIDES CONTAINING A TRYPTOPHAN TRIPLET AND METHODS OF USE;
NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS:
ADDRESSEE: Senniger, Powers, Leavitt & Roedel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
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Sequence 25, Application US/08318157B
Patent No. 5874540
GENERAL INFORMATION:
APPLICANT: HANGEN, Hans J.
APPLICANT: ARMOUR, Kathryn L.
TITLE OF INVENTION: MOUSE MONOCLONAL ANTIBODIES
NUMBER OF SEQUENCES: 58
CORRESPONDENCE ADDRESS:
ADDRESSES: Foley & Lardner
STREET: 3000 K Street, N.W., Suite 500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 24; DB 2; Length 10; 22.2%; Pred. No. 2.1e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/318,157B
FILING DATE: 05-0CT-1994
ATTOREX/AGENT INFORMATION:
NAME: SAXE, Bernhard D.
REGISTRATION NUMBER: 28,665
REFRENCE/DOCKET NUMBER: 18733/464
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELEPRAX: (202)672-5399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TRYP.

STATE: Missouri
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pred. No. 2.1e
7; Mismatches
                                                                                                                                                                                                                                                                                    COUNTRY: USA
ZIP: 2007-5109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ZIP: 63102
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 100.
Best Local Similarity 22.2
Matches 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEX: 904136
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY: linear MOLECULE TYPE: protein
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CURRENT APPLICATION NUMBER: US/09/333,441
CURRENT FILING DATE: 1999-06-15
PRIOR APPLICATION NUMBER: 60/012,392
PRIOR PILING DATE: 1996-02-28
PRIOR APPLICATION NUMBER: 08/806,378
PRIOR PLING DATE: 1997-02-27
NUMBER OF SEQ ID NOS: 4
SOFTWARE: Patentin Ver: 2.1
                                                                                                                                                                                                                                                             ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Artificial Sequence
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Best Local Similarity 22.2.
Lag 2; Conservative
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Matches 2; Conservative
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US-09-669-271A-11
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US-09-881-276-11
                                                                                                                                                                                                                                                                                                                                              US-09-333-441-3
                                                                                                                                                                                               SEQ ID NO 3
LENGTH: 10
                                                                                                                                                                                                                                                                                                                                                                                       Query Match
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                                                                                                                                                                                                                                         TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ) OTHER INFORMATION: Description of Artificial Sequence: parvovirus B19; OTHER INFORMATION: binding polypeptide US-09-186-958-11
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; Patent No. 6262243
; GENERAL INFORMATION:
; APPLICANT: LAWYER, CARL H.
APPLICANT: WATABE, KOUNOSUKE
; TITLE OF INVENTION: NUCLEIC ACIDS ENCODING ANTIMICROBIAL PEPTIDES
; FILE REFERENCE: SIU7391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-186-958-11

; Sequence 11, Application US/09186958B
; Patent No. 6238866
; GENERAL INFORMATION:
; APPLICANT: Whelihan, E. Fayelle
; TITLE OF INVENITION: Binding Moleties for Human Parvovirus B19
; FILE REFERENCE: Dyax-009-0 US sequence listing
; CURRENT APPLICATION UNDBER: US/09/186,958B
; CURRENT FILING DATE: 1998-11-05
; NUMBER OF SEQ ID NOS: 27
; SQCIWARE: PatentIn Ver. 2.1
; SEQ ID NO 11
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/806,378B
FILING DATE: 27-FEB-1997
CLASSIFICATION: 514
PRIOR APPLICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/012,392
FILING DATE: 28-FEB-1996
ATTORNEY/AGENT INFORMATION:
NAMM: BLOSMER: 38-FEB-1996
ATTORNEY/AGENT INFORMATION:
REGISTRATION NUMBER: 314.60
TELEBHONE: 314.231-5400
TELEBHONE: 314.231-5400
TELEBHONE: 314.231-4342
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 10 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 24; DB 2;
Pred. No. 2.1e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7; Mismatches
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22.2%; E
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Best Local Similarity 22.2
Matches 2; Conservative
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Best Local Similarity 22.2
Matches 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY: linear
MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 XFXXWXXX 9
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Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
OTHER INFORMATION: Description of Artificial Sequence: Synthesized OTHER INFORMATION: Proteins
                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 11, Application US/09669271A

Sequence 11, Application US/09669271A

SENERAL INFORMATION:

APPLICANT: Whellhan, E. Fayelle

TITLE OF INVENTION: Binding Moieties for Human Parvovirus B19

FILE REFERENCE: Dyax-009.0 US sequence listing

CURRENT APPLICATION NUMBER: US/09/669,271A

CURRENT FILING DATE: 1998-11-05

NUMBER OF SEQ ID NOS: 27

SOFTWARE: Patentin Ver. 2.1

SEQ ID NO 11

LENGTH: 10

LENGTH: 10
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Fatent No. 6479641
GENERAL INFORMATION:
FINEMERAL INFORMATION:
TITLE OF INVENTION: Binding Moieties for Human Parvovirus B19
FILE REFERENCE: DYX-009.0 US-2
CURRENT APPLICATION NUMBER: US/09/881,276
CURRENT FILING DATE: 2001-06-14
PRIOR PILING DATE: 2000-09-26
PRIOR PILING DATE: 2000-09-26
PRIOR PILING DATE: 1998-11-05
NUMBER OF SEQ ID NOS: 27
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                                                                                                           100.0%; Score 24; DB 3; Length 10; 22.2%; Pred. No. 2.1e+03; tive 7; Mismatches 0; Indels
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TITLE OF INVENTION: Inducing Cellular Immune Responses to Hepatitis B Virus
TITLE OF INVENTION: Using Peptide and Nucleic Acid Compositions
FILE REPERBERGE: 2060.0060007
CURRENT APPLICATION NUMBER: US/09/239,043D
CURRENT FILING DATE: 1999-01-27
FRIOR PEPLICATION NUMBER: US 09/189,702
FRIOR PELING DATE: 1999-11-10
FRIOR PELING DATE: 1997-11-25
FRIOR APPLICATION NUMBER: US 08/978,291
FRIOR PILING DATE: 1997-03-12
FRIOR APPLICATION NUMBER: US 60/013,363
FRIOR FILING DATE: 1997-03-12
FRIOR PILING DATE: 1995-06-05
FRIOR APPLICATION NUMBER: US 60/013,363
FRIOR PILING DATE: 1995-06-05
FRIOR PILING DATE: 1995-06-05
FRIOR PILING DATE: 1995-12-01
FRIOR PILING DATE: 1995-12-01
FRIOR FILING DATE: 1995-12-01
FRIOR FILING DATE: 1995-12-01
FRIOR FILING DATE: 1994-11-23
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                                                                                               SOFTWARE: Patentin Release #1.0, Version #1.30
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                                                                                                              CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/253,794
FILLING DATE: 22-F6-1999
CLASSIFICATION: cUnknown>
PRIOR APPLICATION NUMBER: US 08/318,157
APPLICATION NUMBER: US 08/318,157
ATTORNEY/AGENT INFORMATION:
NAME: SAXE, Bernhard D.
REGISTRATION NUMBER: 28,665
REFERENCE/DOCKET NUMBER: 18733/464
TELECOMMUNICATION INFORMATION:
                         MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 25:
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                                                                                                                                                                                                                                                                                                                                                                                                            TELEPHONE: (202)672-5300
TELEFAX: (202)672-5399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: amino acid
STRANDEDNESS: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 10 amino acids
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Celis, Esteban
Kubo, Ralph T.
Grey, Howard M.
Chesnut, Robert
Epimmune Inc.
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INFORMATION FOR SEQ ID NO: 25:
SEQUENCE CHARACTERISTICS:
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Southwood, Scott
Vitiello, Maria A.
COMPUTER READABLE FORM:
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2 YFGFPWFAY 10
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                                                                                                                                       ; OTHER INFORMATION: Description of Artificial Sequence: parvovirus B19 binding polype
US-09-881-276-11
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Patent No. 6676924
GENERAL INFORMATION:
APPLICANT: HANSEN, Hans J.
ARMOUR, Kathryn L.
TITLE OF INVENTION: CDR-GRAFTED TYPE III ANTI-CEA HUMANIZED
MOUSE MONOCLONAL ANTIBODIES
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APPLICANT: FEIGE, ULRICH
APPLICANT: LIU, CHUAN-FA
APPLICANT: LIU, CHUAN-FA
APPLICANT: LIU, CHUAN-FA
APPLICANT: HOWER CHARLES
TITLE OF INVENTION: WODIFIED PEPTIDES AS THERAPEUTIC AGENTS
FILE REFERENCE: A-527
CURRENT APPLICATION NUMBER: US/09/428,082B
CURRENT FILING DATE: 1999-10-22
PRIOR APPLICATION NUMBER: 60/105,371
PRIOR APPLICATION NUMBER: 60/105,371
PRIOR APPLICATION NUMBER: 60/105,371
PRIOR APPLICATION NUMBER: 999-10-23
NUMBER OF SEQ ID NOS: 1133
SOFTWARE: Patentin version 3.1
                                                                                                                                                                                                             ; Score 24; DB 4; Length 10;
Pred. No. 2.1e+03;
7; Mismatches 0; Indels
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ADDRESSEE: Foley & Lardner
STREET: 3000 K Street, N.W., Suite 500
CITY: Washington
STATE: D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OTHER INFORMATION: MDM/HDM ANTAGONIST PEPTIDE
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NAME/KEY: misc_feature
LOCATION: (2, 4, 8)..(9)
OTHER INFORMATION: Xaa = any amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 142, Application US/09428082B
Patent No. 6660843
                                                                                                                                                                                                             Query Match
Best Local Similarity 22.2%;
Matches 2; Conservative 7
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ORGANISM: Artificial Sequence
                                                                                            ORGANISM: Artificial Sequence
SOFTWARE: Microsoft Word 97
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Best Local Similarity 66.7
Matches 6; Conservative
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US-09-428-082B-142
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LENGTH: 10
                      SEQ ID NO 11
LENGTH: 10
                                                                                                                     FEATURE:
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APPLICANT: LANDESCON, BYTAIN D.
APPLICANT: Celis, Esteban
APPLICANT: Celis, Esteban
APPLICANT: Celis, Esteban
APPLICANT: Celis, Esteban
APPLICANT: Kubo, Ralph T.
APPLICANT: Expand: Mobility Robert
APPLICANT: Epimmune Inc.
APPLICANT: Using Peptide and Nucleic Acid Compositions
FILE REFERENCE: 2060.006007
CURRENT PELLING DATE: 1999-01-27
PRIOR APPLICATION NUMBER: US 09/189,702
PRIOR APPLICATION NUMBER: US 08/978,291
PRIOR APPLICATION NUMBER: US 08/978,291
PRIOR PELLING DATE: 1995-06-05
PRIOR PELLING DATE: 1995-06-05
PRIOR PELLING DATE: 1995-06-05
PRIOR PELLING DATE: 1994-11-21
PRIOR APPLICATION NUMBER: US 08/44,824
PRIOR PELLING DATE: 1994-11-21
PRIOR PELLING DATE: 1994-11-21
PRIOR PELLING DATE: 1994-11-21
PRIOR APPLICATION NUMBER: US 08/276,513
PRIOR APPLICATION NUMBER: US 08/205,713
PRIOR PILING DATE: 1994-07-21
                                                                                     Gaps
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           Query Match 100.0%; Score 24; DB 4; Length 10; Best Local Similarity 22.2%; Pred. No. 2.18+03; Matches 2; Conservative 7; Mismatches 0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 1654, Application US/09239043D Patent No. 6689363
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US-09-620-091-46
; Sequence 46, Application US/09620091
; Patent No. 6716811
; PATENT NO. 671681
; APPLICANT: CWIRLA, STEVEN E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Livingston, Brian D
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Southwood, Scott
Vitiello, Maria A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: US 09/189,702
PRIOR APPLICATION NUMBER: US 09/189,702
PRIOR PLILING DATE: 1999-11-25
PRIOR PLILING DATE: 1997-11-25
PRIOR PLILING DATE: 1997-03-12
PRIOR PLILING DATE: 1997-03-12
PRIOR PLILING DATE: 1996-03-13
PRIOR PLILING DATE: 1994-11-23
PRIOR PLILING DATE: 1994-11-23
PRIOR PLILING DATE: 1994-07-21
PRIOR PLILING DATE: 1994-07-21
PRIOR PLILING DATE: 1994-07-21
PRIOR PLILING DATE: 1994-03-04
PRIOR APPLICATION NUMBER: US 08/197,484
PRIOR PRILING DATE: 1994-03-04
PRIOR PLILING DATE: 1994-03-04
PRIOR PRILING DATE: 1994-03-04
PRIOR PLILING DATE: 1994-03-04
PRIOR PRILING DATE: 1994-03-04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
PRIOR APPLICATION NUMBER: US 08/278,634
PRIOR FILING DATE: 1994-07-21
PRIOR PAPLICATION WUMBER: US 08/205,713
PRIOR FILING DATE: 1994-03-04
PRIOR PILING DATE: 1994-02-16
PRIOR FILING DATE: 1994-02-16
PRIOR FILING DATE: 1994-02-16
SEQ ID NOS: 2579
SOFTWARE: FABELSEQ for Windows Version 4.0
SEQ ID NO 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 100.0%; Score 24; DB 4; Length 10; Best Local Similarity 22.2%; Pred. No. 2.18+03; Matches 2; Conservative 7; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM: Orthohepadnaviridae hepatitis B virus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 907, Application US/09239043D Patent No. 6689363 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sidney, John Southwood, Scott Vitiallo, Maria A. Livington, Brian D. Celig, Esteban Kubo, Ralph T. Grey, Howard M. Chesnut, Robert Epimmune Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Sette, Alessandro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 IFFCLWVYI 10
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US-09-239-043D-907
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A human chitinase, its recombinant production, its use in therapy or prophylaxis against infection diseases.
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                                      ; Score 24; DB 1; Length 11;
Pred. No. 2.3e+03;
7; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 24; DB 2; Length 11; 22.2%; Pred. No. 2.3e+03; ive 7; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred. No. 2.3e 7; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Curtis, Morris, & Safford
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 14, Application US/08485324
Patent No. 6043093
GENERAL INFORMATION:
GENERAL INFORMATION:
TITLE OF INVENTION: SELECTION METHODS
NUMBER OF SEQUENCES: 31
COMPRESPONDENCE ADDRESS:
ADDRESSEE: Curtis, Morris, & Safford
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STATE: New York
COUNTRY: United States of America
ZIP: 11758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/486,839
FILING DATE: 07 - June - 1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                     Sequence 9. Application US/08486839;
Patent No. 5928928
GENERAL INFORMATION:
TITLE OF INVENTION: A human chitin.
TITLE OF INVENTION: production, it.
TITLE OF INVENTION: in therapy or j.
NUMBER OF SEQUENCES: 16
CORRESPONDENCE ADDRESS:
ADDRESSEE: Hoffmann & Baron
STREET: 350 Jericho Turnpike
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELECOMMUNICATION INFORMATION:
TELEPHONE: (516) 822-3550
TELEFAX: (516) 822-3582
INFORMATION FOR SEQ ID NO: 9:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: Baron, Ronald J.
REGISTRATION NUMBER: 29,281
REFERENCE/DOCKET NUMBER: 29
                                         100.0%;
22.2%; I
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Matches 2; Conservative
                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         unknown
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                                                                                                                                                                 : |:::|:::
2 GFLRDWYFD 10
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3 GFDLDWEYP 11
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: amino acid
STRANDEDNESS: unk
                                         Query Match
Best Local Similarity
Matches 2; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE:
US-08-318-970B-10
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US-08-485-324-14
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Patent No. 5589573
GENERAL INCORMATION:
APPLICANT: Hideaki HAGIWARA, et al.
TITLE OF INVENTION:
AMINO ACID SEQUENCES OF ANTI-IDIOTYPIC
TITLE OF INVENTION:
AMINO ANTIBODIES AGAINST ANTI-CANCER HUMAN MONOCLONAL ANTIBODY
TITLE OF INVENTION:
AND DNA BASE SEQUENCES ENCODING THOSE SEQUENCES
NUMBER OF SEQUENCES:
48
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                APPLICANT: DUFFIN, DAVID J.

APPLICANT: DUFFIN, DAVID J.

APPLICANT: MERRILL, BARBARA MCGOWEN

APPLICANT: MERRILL, BARBARA MCGOWEN

APPLICANT: SCHATZ, PETER JOSBEH

TITLE OF INVENTION: COMPOUNDS HAVING AFFINITY FOR THE GRANULOCYTE-COLONY

TITLE OF INVENTION: STIMULATING FACTOR RECEPTOR (G-CSFR) AND ASSOCIATED TITLE OF INVENTION: USES

FILE REPERENCE: 0300-0014

CURRENT APPLICATION NUMBER: US/09/620,091

CURRENT APPLICATION NUMBER: US/09/620,091

CURRENT APPLICATION NUMBER: US/09/620,091

CURRENT APPLICATION NUMBER: US/09/620,091
                                                                                                                                                                                                                                                                                                                                                                                                           OTHER INFORMATION: Description of Artificial Sequence: Synthetic; CTHER INFORMATION: peptide
US-09-620-091-46
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COMPUTER READABLE FORM:

MEDIUM TYPE: Diskette, 5.25 inch, 360 kb storage

MEDIUM TYPE: Diskette, 5.25 inch, 360 kb storage

COMPUTER: Diskette, 210; Intel 80 285 Microprocessor

OPERATING SYSTEM: MS DOS 3.3

SOFTWARE: Word Perfect, Version 5.1

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/318,970B

FILING DATE: October 6, 1994

CLASSIFICATION: 530

ATTORNEY/AGENT INFORMATION:

NAMM: Richard A. Steinberg

REGISTRATION NUMBER: 26,588

REGISTRATION NUMBER: 26,588

REFERENCE/DOCKET NUMBER: 25,588

REFERENCE/DOCKET NUMBER: 3-2371

TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 24; DB 4; Length 10; Pred. No. 2.1e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
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ADDRESSEE: Law Office of Sherman and Shalloway STREET: 413 N. Washington Street CITY. Alexandria STATE: Virginia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       7; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY: H-CDR3-3 OTHER INFORMATION: hypervariable region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%;
22.2%; P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEPHONE: (703) 549-2282
TELEPAX: (703) 836-0106
INFORMATION FOR SEQ 1D NO: 10:
SEQUENCE CHARACTERISTICS:
LENGTH: 11 amino acids
                                                                                                                                                                                                                                                                                                                                          TYPE: PRT ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 22.2
Entropy 2, Conservative
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BALU, PALANI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 XFXXXWXXX 9
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TOPOLOGY: line
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CFWSDWGQT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STATE: Virginia COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-08-318-970B-10
                                                                                                                                                                                                                                                                                                 SEQ ID NO 46
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Gaps
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100.0%; Score 24; DB 3; Length 11;
Best Local Similarity 22.2%; Pred. No. 2.3e+03;
Matches 2; Conservative 7; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                        Query Match 100.0%; Score 24; DB 3; Length 11; Best Local Similarity 22.2%; Pred. No. 2.38+03; Matches 2; Conservative 7; Mismatches 0; Indels
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MEDIUM TYPE: Floppy disk
COMPUTER: Talm PC-DOS/MS-DOS
COMPUTER: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: 23-MAY-1995
CLASSIFICATION ADATA:
APPLICATION NUMBER: US 08/235,437
FILING DATE: 23-ARR-1994
APPLICATION NUMBER: US 08/255,412
FILING DATE: 16-MAR-1992
APPLICATION NUMBER: US 07/852,412
FILING DATE: 16-MAR-1992
APPLICATION NUMBER: 22,802
REGISTRATION NUMBER: 22,802
REGISTRATION NUMBER: 22,802
RESPERENCE/POCKET NUMBER: 370132-2000
TELEBPHONE: (212) 849-3333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 14, Application US/08447506
Patent No. 6066499
GENERAL INFORMATION:
APPLICANT: Wohlstadter, Jacob
TITLE OF INVENTION: SELECTION METHODS
CORRESPONDENCE ADDRESS:
ADDRESSEE: Curtis, Morris, & Safford
ADDRESSEE: C, Darry Evans
STREET: 530 Fifth Avenue
CITY: New York
STATE: New York
     REFERENCE/DOCKET NUMBER: 294-32 DIV
                        TELECOMMUNICATION INFORMATION:
TELEPHONE: (516) 822-3550
TELEPHONE: (516) 822-3550
TELEPHONE: (516) 822-3582
INFORMATION FOR SEQ. ID NO: 9:
SEQUENCE CHARACTERISTICS:
LENGTH: 11 amino acids
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INFORMATION FOR SEQ ID NO: 14:
SEQUENCE CHARACTERISTICS:
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TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                       TYPE: amino acid
STRANDEDNESS: unknown
TOPOLOGY: unknown
                                                                                                                                                                                                                                                                   MOLECULE TYPE: protein HYPOTHETICAL: NO
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Production, Its Use For Decomposing Chitin, Its Use in
Therapy or Prophylaxis Against Infection Diseases.
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100.0%; Score 24; DB 3; Length 11;
Best Local Similarity 22.2%; Pred. No. 2.38+03;
Matches 2; Conservative 7; Mismatches 0; Indels
                                                                                                                COMPUTER READABLE FORM:

BEDIUM TYPE: Floppy disk
COMPUTER: ELOPPY disk
COMPUTER: IBM PC Compatible
COMPUTER: DATA:
SOFTWARE: PatentIN Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/485,324
FILING DATE: 07-JUN-1995
RELING DATE: 10-JUN-1995
APPLICATION NUMBER: US 07/852,412
FILING DATE: 16-MAR-1994
APPLICATION NUMBER: US 07/852,412
FILING DATE: 16-MAR-1992
ATPORNEY/AGENT INFORMATION:
NAME: EVANA, BATE: 16-MAR-1992
ATPORNEY/AGENT INFORMATION:
REGISTRATION NUMBER: 22,802
REGISTRATION NUMBER: 22,802
REGISTRATION NUMBER: 370132-2000
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 840-3133
TELEPRAX: (212) 840-3133
TELEPRAX: (212) 840-3133
TELEPRAX: (212) 840-3133
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION OF 14:
SEQUENCE CHARACTERISTICS:
LENGTH: 11 amino acids
TYPE: amino acids
TYPE: amino acids
TYPE: amino acids
TYPE: ATRANDEDENSS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CITY: Sydset
STATE: New York
COUNTRY: United States of America
ZIP: 11791
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
TITLE OF INVENTION: A Human Chitinase
TITLE OF INVENTION: Production, Its U
TITLE OF INVENTION: Therapy or Prophy
NUMBER OF SEQUENCES: 16
CORRESPONDENCE ADDRESS:
ADDRESSEE: HOffmann & Baron, LLP
STREET: 6900 Jericho Turnpike
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/151,011
FILING DATE: 10 - September - 1998
ATTORNEY/AGENT INFORMATION:
RAMB: MOTISS, Robert C.
REGISTRATION NUMBER: 42,910
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 9, Application US/09151011
Patent No. 6057142
GENERAL INFORMATION:
ADDRESSEE: c/o Barry Evans
STREET: 530 Fifth Avenue
CITY: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 XFXXXWXXX 9
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                                                                                  New York
                                                                                                          USA
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                                                                                                          COUNTRY:
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; OTHER INFORMATION: Description of Artificial Sequence: parvovirus B19; OTHER INFORMATION: binding polypeptide
US-09-186-958-4
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Patent No. 6238860
GENERAL INFORMATION:
FILE PEPERCENCE:
FILE PEPERCENCE: Dyax-009.0 US sequence listing
CURRENT APPLICATION NUMBER: US/09/186,958B
CURRENT FILING DATE: 1998-11-05
NUMBER: OF SEQ ID NOS: 27
SEQ ID NO 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 24; DB 3; Length 11; Pred. No. 2.3e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 24; DB 3; Length 11; 22.2%; Pred. No. 2.3e+03; ative 7; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Indels
                                           OPERATING SYSTEM: PC-DOS/MS-DUS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
PILLING DATE: 2-MAY-1995
FILLING DATE: 2-MAY-1995
CLASSIFICATION NUMBER: US 08/235,437
FILLING DATE: 29-APR-1994
APPLICATION NUMBER: US 07/852,412
FILLING DATE: 16-MAR-1992
ATTORNEY/AGENT INFORMATION:
REGISTRATION NUMBER: 22,802
ATTORNEY/AGENT INFORMATION:
TELEPHONE: (212) 840-333
TELEPHONE: (212) 840-333
TELEPHONE: (212) 840-0712
SEQUENCE CHARACTERISTICS:
LEMOTH: 11 amino acids
LEMOTH: 11 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 22.2%; Pred. No. ...
                    COMPUTER: IBM PC_compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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Sequence 6, Application US/09186958B

Patent No. 6238860

GENERAL INFORMATION:

APPLICANT: Whelihan, E. Fayelle
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TYPE: PRT
ORGANISM: Artificial Sequence
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Matches 2; Conservative
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1 QFINMWQEV 9
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1 FFCGFWHDC 9
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Best Local Similarity
2, Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                               amino acid
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                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/235,437
FILING DATE: 29-APR-1994
CLASSIFICATION 1435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/852,412
FILING DATE: 16-MAR-1992
ATTOMEY/AGENT INFORMATION:
NUMBER: 16-MAR-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 14, Application US/08447515
; Sequence 14, Application US/08447515
; Patent No. 6162640
; GENERAL INFORMATION:
    TITLE OF INVENTION: SELECTION METHODS
; TUNBER OF SEQUENCES: 31
CORRESPONDENCE ADDRESS:
    ADDRESSEE: Curtis, Morris, & Safford ADDRESSEE: Curtis, Morris, & Safford STREET: 530 Fith Avenue
    CITY: New York
    COUNTRY: USA
    ZIP: 10.
                                                                                                                                                                                                                                                     ADDRESSEE: Curtis, Morris, & Safford
ADDRESSEE: c/o Barry Evans
STREET: 530 Fifth Avenue
CITY: New York
STATE: New York
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: Evans, Barry
REGISTRATION NUMBER: 22,802
REFERENCE/DOCKET NUMBER: 370132-2000
TELECOMUNICATION INFORMATION:
TELEPHONE: (212) 840-3333
                                                                                                            Sequence 14, Application US/08235437
Patent No. 6087177
GENERAL INFORMATION:
APPLICANT: Wohlstadter, Jacob
TITLE OF INVENTION: SELECTION METHODS
NUMBER OF SEQUENCES: 31
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: (12) 840-712
TELEFAX: (212) 840-712
INFORMATION FOR SEQ ID NO: 14:
SEQUENCE CHARACTERISTICS:
LENGTH: 11 amino acids
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Best Local Similarity 22.2
Matches 2; Conservative
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COMPUTER READABLE FORM:
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QFINMWQEV 9
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1 QFINMWQEV 9
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STRANDEDNESS: si
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) OTHER INFORMATION: Description of Artificial Sequence: parvovirus B19; OTHER INFORMATION: binding polypeptide US-09-186-958-9
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                                                                                                                                                                                                                                                                                                         | Sequence 9, Application US/09186958B
| Patent No. 6238860
| GENERAL INFORMATION:
| APPLICANT: Whelihan, E. Fayelle
| TITLE OF INVENTION: Binding Moieties for Human Parvovirus B19
| TITLE OF INVENTION: Binding Moieties for Human Parvovirus B19
| CURRENT PELICATION NUMBER: US/09/186,958B
| CURRENT FILING DATE: 1998-11-05
| CURRENT FILING DATE: 1998-11-05
| SOFTWARE: PatentIn Ver. 2.1
| SOFTWARE: PatentIn Ver. 2.1
| STOPENT III | TYPE: PRT
| TYPE: PRT
| ORGANISM: Artificial Sequence
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Patent No. 6238860
GENERAL INFORMATION:
TITLE OF INVENTION: Binding Moleties for Human Parvovirus B19
TITLE OF INVENTION: Binding Moleties for Human Parvovirus B19
FILE REFERENCE: Dyax-009.0 US sequence listing
CURRENT APPLICATION NUMBER: US/09/186,958B
CURRENT FILIG DATE: 1998-11-05
NUMBER OF SEQ ID NOS: 27
SOSTWARE: Patentin Ver. 2.1
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                                                    ; Score 24; DB 3; Length 11; Pred. No. 2.3e+03; 7; Mismatches 0; Indels
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Best Local Similarity 22.2
Matches 2; Conservative
                                                      Query Match 100.
Best Local Similarity 22.2
Matches 2; Conservative
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Best Local Similarity
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US-09-186-958-10
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US-09-669-271A-4
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            US-09-186-958-8
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OTHER INFORMATION: Description of Artificial Sequence: parvovirus B19
OTHER INFORMATION: binding polypeptide
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Patent No. 6238860
GENERAL INFORMATION:
APPLICATT Whellhan, E. Fayelle
TILE OF INVENTION:
FILE REFERENCE: Dyax-009.0 US sequence listing
CURRENT APPLICATION NUMBER: US/09/186,958B
CURRENT FILING DATE: 1998-11-05
NUMBER OF SEQ ID NOS: 27
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 7
LENGTH: 11
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; Patent No. 6238860
; GENERAL INFORMATION:
APPLICANT: Whelihan, E. Fayelle
; TITLE OF INVENTION: Binding Moleties for Human Parvovirus B19
; FILE REFERENCE: Dyax-009.0 US sequence listing
; CURRENT APPLICATION NUMBER: US/09/186,958B
; CURRENT FILING DATE: 1998-11-05
; NUMBER OF SEQ ID NOS: 27
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 8
TITLE OF INVENTION: Binding Moieties for Human Parvovirus B19 FILE REFERRENCE: Dyax.009.0 US sequence listing CURRENT APPLICATION NUMBER: US/09/186,958B CURRENT FILING DATE: 1998-11-05 NUMBER OF SEQ ID NOS: 27 SOFTWARE: Patentin Ver. 2.1 SEQ ID NO 6 LENGTH: 11
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                                                                                                                                                                                                                                                                                                                                                               Query Match 100.0%; Score 24; DB 3; Length 11; Best Local Similarity 22.2%; Pred. No. 2.3e+03; Matches 2; Conservative 7; Mismatches 0; Indels
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                                                                                                                                                                                                                      ORGANISM: Artificial Sequence
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Matches 2, Conservative
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1998-11-05

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PRIOR FILING DATE: 1998-11-(
NUMBER OF SEQ ID NOS: 27
SOFTWARE: PATENTIN VEY: 2.1
SEQ ID NO 7
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US-09-669-271A-9
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LENGTH: 11
                                                                                LENGTH: 11
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                                                                                                                                                                                                                                                                                                               OTHER INFORMATION: Description of Artificial Sequence: parvovirus B19 OTHER INFORMATION: binding polypeptide
Sequence 4, Application US/09669271A;
Patent No. 6291197;
GENERAL INFORMATION;
TITURORATION;
PAPLICANT: Whelihan, E. Fayelle
TITLE OF INVENTION: Binding Moieties for Human Parvovirus B19;
FILE REFERENCE: Dyax-009, 0.US sequence listing
CURRENT APPLICATION NUMBER: US/09/669,271A;
CURRENT FILING DATE: 2000-09-26
PRIOR PELIAGATION NUMBER: 09/186,958
NUMBER OF SEQ ID NOS: 27
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 4
LENGTH: 11
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Patent No. 6291197
BATENT NO. 6291197
APPLICANT: Whelihan, B. Fayelle
TITLE OF INVENTION: Binding Moieties for Human Parvovirus B19
FILE REFERENCE: Dyax-009.0 US sequence listing
CURRENT APPLICATION NUMBER: US/09/669,271A
CURRENT FILING DATE: 2000-09-26
PRIOR APPLICATION NUMBER: 09/186,958
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Best Local Similarity 22.2%; I
Matches 2; Conservative 7
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Best Local Similarity 22.2
Matches 2; Conservative
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1 FFCGFWHDC 9
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1 FFCALWPSC 9
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                                                                          OTHER INFORMATION: Description of Artificial Sequence: parvovirus B19
OTHER INFORMATION: binding polypeptide
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OTHER INFORMATION: binding polypeptide
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Patent No. 6291197
Batent No. 6291197
BATENT INFORMATION:
APPLICANT: Whelihan, E. Fayelle
TITLE OF INVENTION: Binding Moieties for Human Parvovirus B19
CURRENT APPLICATION NUMBER: US/09/669,271A
CURRENT FILING DATE: 2000-09-26
PRIOR APPLICATION NUMBER: 09/186,958
PRIOR FILING DATE: 199811-05
NUMBER OF SEQ ID NOS: 27
SOFTWARE: Patentin Ver. 2.1
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TITLE OF INVENTION: Binding Moieties for Human Parvovirus B19
FILE REPERENCE: Dyax-009.0 US sequence listing
CURRENT APPLICATION NUMBER: US/09/669,271A
CURRENT FILING DATE: 2000-09-26
PRIOR APPLICATION NUMBER: 09/186,958
PRIOR FILING DATE: 1998-11-05
NUMBER OF SEQ ID NOS: 27
SOFTWARE: PatentIn Ver. 2.1
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                                                                                                                                                                             100.0%; Score 24; DB 3; Length 11; 22.2%; Pred. No. 2.3e+03; cive 7; Mismatches 0; Indels
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TYPE: PRT
ORGANISM: Artificial Sequence
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ORGANISM: Artificial Sequence
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Patent No. 6303118
GENERAL INFORMATION:
APPLICANT:
TITLE OF INVENTION: A human chitinase, its recombinant
TITLE OF INVENTION: production, its use for decomposing chitin, its use
TITLE OF INVENTION: in therapy or prophylaxis against infection diseases.
NUMBER OF SEQUENCES: 16
CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                         Gequence 10, Application US/09669271A

Patent No. 6291137

GENERAL INFORMATION:

APPLICANT: Whellian, E. Fayelle

TITLE OF INVENTION:

FILE REFERENCE: Dyax.009.0 US sequence listing

CURRENT APPLICATION NUMBER: US/09/669,271A

CURRENT FILING DATE: 2000-09-26

PRIOR APPLICATION NUMBER: 09/186,958

PRIOR FILING DATE: 1998-11-05

NUMBER OF SEQ ID NOS: 27

SOFTWARE: Patentin Ver. 2.1

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Matches 2; Conservative 7; Mismatches 0; Indels
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; OTHER INFORMATION: binding polypeptide US-09-669-271A-9
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/486,839
FILING DATE: 07-June-1995
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CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/343,623
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ATTORNEY/AGENT INFORMATION:

NAME: Baron, Ronald J.

REGISTRATION NUMBER: 29,281

REFERENCE/DOCKET NUMBER: 29,281

REFERENCE/DOCKET NUMBER: 29,281

TELEPHONE: (516) 822-3550

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Sequence:

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Sequence 177, App Sequence 17, Appli Sequence 12, Appli Sequence 12, Appli Sequence 2028, App Sequence 21, Appl Sequence 21, Appl Sequence 55, Appl Sequence 55, Appl Sequence 25, Appl Sequence 34, Appl Sequence 25, Appli Sequence 24, Appli Sequence 25, Appli Sequence 26, Appli Sequence 27, Appli 27, 
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100.0 10 20 US-11-051-411-474 Sequence 47 100.0 11 9 US-09-881-276-4 Sequence 7, 100.0 11 9 US-09-881-276-6 Sequence 7, 100.0 11 9 US-09-881-276-8 Sequence 7, 100.0 11 9 US-09-881-276-9 Sequence 8, 100.0 11 9 US-09-881-276-9 Sequence 10, 100.0 11 9 US-09-977-827-10 Sequence 10, 100.0 11 9 US-09-748-739,-12 Sequence 10, 100.0 11 10 US-09-840-085-31 Sequence 31, 100.0 11 13 US-10-155-059-31 Sequence 31, 100.0 11 13 US-10-155-059-31 Sequence 31, 100.0 11 13 US-10-155-059-31	100.0 11 14 US-10-136-666-1 Sequence 2. 100.0 11 14 US-10-136-666-1 Sequence 2. 100.0 11 14 US-10-097-175-90 Sequence 7. 100.0 11 14 US-10-097-175-90 Sequence 7. 100.0 11 14 US-10-097-175-90 Sequence 1. 100.0 11 14 US-10-193-651-11 Sequence 2. 100.0 11 14 US-10-113-123-504 Sequence 2. 100.0 11 14 US-10-1158-847-104 Sequence	100.0 11 14 US-10-129-124.73.4 Sequence 100.0 11 14 US-10-128-025.104 Sequence 100.0 11 14 US-10-072-419-37 Sequence 100.0 11 15 US-10-072-419-37 Sequence 100.0 11 15 US-10-632-388-325 Sequence 100.0 11 15 US-10-632-388-325 Sequence 100.0 11 15 US-10-645-761-325 Sequence 100.0 11 15 US-10-653-048-325 Sequence 100.0 11 16 US-10-653-048-325 Sequence 100.0 11 16 US-10-128-822-3 Seq	100.0 11 16 US-10-745-757-14 Sequence 100.0 11 17 US-10-879-994-83 Sequence 100.0 11 17 US-10-879-994-83 Sequence 100.0 11 17 US-10-879-994-83 Sequence 100.0 11 17 US-10-659-207-444 Sequence 100.0 11 17 US-10-654-601-1108 Sequence 100.0 11 17 US-10-654-601-1626 Sequence 100.0 11 17 US-10-656-250-43 Sequence 100.0 11 17 US-10-656-250-45 Sequence 100.0 11 17 US-10-656-250-46 Sequence 100.0 11 17 US-10-656-250-47 Sequence 100.0 11 17 US-10-656-250-47 Sequence 100.0 11 17 US-10-656-250-47 Sequence 100.0 11 18 US-10-878-325 Sequence 100.0 11 18 US-10-880-834-504 Sequence 100.0 11 20 US-10-834-504 Sequence 100.0 12 9 US-10-813-504 Sequence 100.0 12 9 US-10-813-504 Sequence 100.0 12 9 US-10-813-504 Sequence 100.0 12 9 US-10-814-371-7 Sequence 100.0 12 9 US-10-814-371-7 Sequence 100.0 12 9 US-09-214-371-7 Sequence 100.	00.0 12 9 US-09-214-371-17 Sequence 00.0 12 9 US-09-214-371-18 Sequence 00.0 12 9 US-09-214-371-18 Sequence 00.0 12 9 US-09-214-371-24 Sequence 00.0 12 9 US-09-214-371-24 Sequence 00.0 12 9 US-09-214-371-25 Sequence 00.0 12 9 US-09-214-371-25 Sequence 00.0 12 9 US-09-214-371-27 Sequence 00.0 12 9 US-09-214-371-31 Sequence 00.0 12 9 US-09-214-371-31 Sequence 00.0 12 9 US-09-214-371-64 Sequence 00.0 12 9 US-09-881-276-13 Sequence 00.0 12 9 US-09-881-276-13 Sequence 00.0 12 9 US-09-881-276-14 Sequence 00.0 12 9 US-09-881-276-15 Sequence 00.0 12 9 US-09-881-276-15 Sequence 00.0 12 9 US-09-881-276-15 Sequence 00.0 12 9 US-09-881-376-15 Sequence 00.0 12 9 US-09-96-813-35 Sequence 00.0 12 9 US-09-96-813-35 Sequence 00.0 12 9 US-09-96-373 Sequence 00.0 12 9 US-09-971-980-73 Sequence

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Sequence 13	Sequence 13	Sequence 135, App	Sequence 13	Seduence 13	Sequence 14	sednence 14	sednence 14	sednence 14	Sequence 27	Sequence 28	Sequence 29	Segmence 31	CE echemes	ac policinate	sednence 33	Sequence 35	Sequence 36	CC entremps	or order	Sequence 23	Sequence 11	Sequence 37	Seguence 39	Sementer 30	sedueire 33	Sednence 1,	Sequence 2,	Sequence 27	Semience 78	C action of	sednence 13	Sequence 13	Seguence 13	Semionor 13	Stanfact 13	Sequence 13	Sequence 13	Sequence 13	Seguence 14	AL acriamas	tt action to	Sequence 14	Semience 14	FT DOMESTIC	sednence e,	Seguence 7,	CL acreament	or openimon	sednence IR	sednence 19	Seguence 20	AC entrement	F7 CONCINCO	cz aprienhac	Sequence 26	Sequence 27	Segmence 31	Compression 22	מכליהבורם אל	Sednence 63	Sequence 64	Seguence 1.	Seminary 12	CC ODUCTION OF	zc aorianhac	Sequence 33	Sequence 61,	Segmence 69.	Semience 18	Semience 19	OF OPERATION	oe anicalice ee	Seguence 9,	Sequence 22.	Sequence 2,	Segmence 10	Secretary 101	Sequence 10	sedneuce In	Seguence 10	Sequence 11	Sementer 28	oc domonos	Sequence 29	Sequence 10.	Sequence 10	1	
US-10-653-048-133 Seguence 13	US-10-653-048-134 Sequence 13	US-10-653-048-135 Sequence 13	118-10-653-048-134 sequence 13	10 10 CT3 040 143	110 10 CES 040 144	tro 10 cm ove 141	us-10-653-048-145 sequence 14	US-IU-633-048-146 Sequence 14	05-10-46/-/58-2/	US-10-46/-/58-28 Sequence 28	US-10-467-758-29 Sequence 29	US-10-467-758-31 Semience 31	US-10-467-758-32		ceduence 33	US-10-467-758-35 Seguence 35	US-10-467-758-36 Seguence 36	IIS-10-363-204-228	11S-10-659-407-29	110 10 60E 030 11	US-10-685-838-11 Sequence 11	US-10-433-492-37 Sequence 37	US-10-912-512-391 Seguence 39	118-10-235-043-391 Cemience 30	110 10 010 0401 1	US-IU-8/3-848B-I Seguence I,	US-10-873-848B-2 Sequence 2,	US-10-968-732-27 Sequence 27	US-10-968-732-78 Semience 78	TRE-10-64E-764-121	US-10-645-784-131 Sequence 13	US-10-645-784-132 Sequence 13	US-10-645-784-133 Sequence 13	TIS-10-645-784-134 Company 12		US-10-645-784-135 Sequence 13	US-10-645-784-136 Sequence 13	US-10-645-784-137 Sequence 13	US-10-645-784-143 Seguence 14	US-10-645-784-144	TAT TO CAE TAT TAT	US-10-645-784-145 Sequence 14	US-10-645-784-146 Semience 14	עליייייייייייייייייייייייייייייייייייי	US-10-92/-262A-b	US-10-927-262A-7 Sequence 7,	US-10-927-262A-17 Semience 17	110-02-10-01-01-01-01-01-01-01-01-01-01-01-01-	no-10-32/-262A-18 sequence 18	US-IU-92/-262A-I9 Seguence I9	US-10-927-262A-20 Sequence 20	11S-10-927-2628-24	TIC_10_007_2608_3E	22 anii-nhac 22 22 22 27 20 21 20 21 20 21 20 21 20 21 20 21 20 21 20 21 20 21 20 21 20 21 20 21 20 21 20 21 20 21 20 21 20 20 21 20	US-10-927-262A-26 Sequence 26	US-10-927-262A-27 Sequence 27	US-10-927-262A-31 Seguence 31	115-10-927-2628-32	מייייייייייייייייייייייייייייייייייייי	05-10-32/-262A-63 Sequence 63	US-10-927-262A-64 Sequence 64	US-10-312-637-1 Sequence 1.	US-10-993-906-12	TIS-11-003-051-22	ze acimenhae ze-ree-coo-rr-co	US-11-003-951-33 Sequence 33	.935-682-61 Seguence 61,	.894-018-69 Segmence 69.	.949-375A-18 Semience 18	785-215-19 Seminor 19	1.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2	מבלתבווכם פס	-T22-029-9)-094-401-227 Sequence 22)-170-645-2 Sequence 2,)-158-847-103 Segmence 10	1-158-847-105 Company 101	1150-047-100	-130-84/-108 sednence 10	1-158-847-109 Seguence 10	1-158-847-110 Sequence 11	1-253-532-28 Semience 28	1-253-534-50 Sequence 28	1-23-33-34-29 Sequence 29	1-158-825-103 Sequence 10	-158-825-105 Sequence 10	1	
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APPLICANT: Lane, David
APPLICANT: Bottger, Volker
APPLICANT: Bottger, Volker
APPLICANT: Bottger, Angelica
APPLICANT: Bottger, Angelica
APPLICANT: Pickeley, Stephen
APPLICANT: Chene, Patrick
APPLICANT: Horlkeppel, Heinz-Kurt
APPLICANT: Furet, Pascal
APPLICANT: Pascal
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                    OTHER INFORMATION: X = glutamic acid, threonine, alanine, OTHER INFORMATION: phenylalanine or serine, preferably glutamic acid.
                       OTHER INFORMATION: X = arginine, asparagine, alanine, threonine or OTHER INFORMATION: valine, particularly arginine.

NAMESTER: NARIANT
LOCATION: (3)
OTHER INFORMATION: X = methionine, isoleucine, threonine, arginine, OTHER INFORMATION: alanine or serine, preferably methionine
LOCATION: (4)
OTHER INFORMATION: X = arginine, histidine, glutamic acid, cysteine, OTHER INFORMATION: Serine or preferably aspartic acid.

LOCATION: (5)
LOCATION: (5)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: VARIANT
LOCATION: (8)
OTHER INFORMATION: X = glycine, glutamine, threonine, alanine or
OTHER INFORMATION: aspartic acid preferably glycine.
NAME/KEY: VARIANT
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                                                                                                                                                                                                                                                                                                                                  OTHER INFORMATION: Xaa = histidine, phenylalanine or preferably OTHER INFORMATION: tyrosine.
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US-09-214-371-11
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 100.0%; Score 24; DB 9; Length 9; Best Local Similarity 100.0%; Pred. No. 1.7e+06; Matches 9; Conservative 0; Mismatches 0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; Sequence 15, Application US/09214371B; Patent No. US20010018511A1; GENERAL INFORMATION:
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ORGANISM: Artificial Sequence
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                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY: VARIANT LOCATION: (7)
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US-09-214-371-15
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Sequence 9, Appli
Sequence 9, Appli
Sequence 9, Appli
Sequence 118, App
Sequence 118, App
Sequence 176, App
Sequence 176, App
Sequence 118, App
Sequence 9, App
Sequence 9, App
Sequence 9, App
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37, Appli
11, Appli
291, App
379, App
379, App
49, Appl
49, Appl
58, Appl
71, Appl
71, Appl
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Sequence 19, Appli
Sequence 7, Appli
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APPLICANT: Bottger, Volker
APPLICANT: Bottger, Volker
APPLICANT: Bottger, Volker
APPLICANT: Bottger, Stephen
APPLICANT: Pickeley, Stephen
APPLICANT: Chene, Patrick
APPLICANT: Chene, Patrick
APPLICANT: Garcia-Echeverria, Carlos
APPLICANT: Furet, Pascal
TITLE OF INVENTION: Inhibitors of the Interaction of P53 and MDM2
FILE REFERENCE: 4-20937/A/PCT
CURRENT APPLICATION NUMBER: US/09/214,371B
CURRENT FILING DATE: 1999-03-26
PRIOR APPLICATION NUMBER: PCT/EP97/03549
PRIOR PLING DATE: 1997-07-04
NUMBER OF SEQ ID NOS: 83
SOFTWARE: Patentin Ver. 2.0
LENGTH: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 58,
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Sequence 80,
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                                 Sequence
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OTHER INFORMATION: Description of Artificial Sequence:peptide
NAME/KEY: VARIANT
US-10-328-953-14
US-10-367-580-9
US-10-367-580-9
US-10-367-580-9
US-10-367-658-9
US-10-367-658-9
US-10-367-668-9
US-10-367-668-9
US-10-367-668-9
US-10-289-118-129
US-10-289-144-274
US-10-624-884-9
US-10-624-884-9
US-10-624-884-9
US-10-637-618-18
US-10-877-124-118
US-10-877-124-118
US-10-877-124-118
US-10-877-124-118
US-10-877-124-118
US-10-877-124-118
US-10-877-125-118
US-10-877-124-118
US-10-927-2624-1
US-10-927-2624-1
US-10-776-2218-379
US-10-776-2218-379
US-10-776-2218-379
US-10-776-2218-379
US-10-776-2218-379
US-10-776-2218-379
US-10-776-2218-379
US-10-772-582-70
US-10-792-582-70
US-10-792-582-70
US-10-792-582-96
US-10-792-582-96
US-11-028-058-18
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US-09-812-528-19
US-09-765-527-7
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Patent No. US20010018511A1
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ORGANISM: Artificial Sequence
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     -09-214-371-11
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APPLICANT: Bottger, Angelica
APPLICANT: Pickeley, Stephen
APPLICANT: Pickeley, Stephen
APPLICANT: Chene, Patrick
APPLICANT: Chene, Patrick
APPLICANT: Gazcia-Echeveria, Carlos
APPLICANT: Puret, Pascal
TITLE OF INVENTION: Inhibitors of the Interaction of PS3 and MDM2
FILE REFERENCE: 4-20937/A/PCT
CURRENT APPLICATION NUMBER: US/09/214,371B
CURRENT PILIGA DATE: 1999-03-26
PRIOR PILIGA DATE: 1997-07-04
NUMBER OF SEQ ID NOS: 83
SOFTWARE: PatentIn Ver. 2.0
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OTHER INFORMATION: Description of Artificial Sequence:peptide
NAME/KEY: VARIANT
LOCATION: (1)
OTHER INFORMATION: x = Ac-Arg
                                                                                                 FEATURE:
OTHER INFORMATION: Description of Artificial Sequence:peptide
NAME/KEY: VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                         ; Score 24; DB 9; Length 9; Pred. No. 1.7e+06; 3; Mismatches 0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 24;
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Bottger, Volker
Bottger, Angelica
Picksley, Stephen
Chene, Patrick
Hochkeppel, Heinz-Kurt
Garcia-Echeverria, Carlos
Furet, Pascal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 5
8.09-211-59
8.620-action US/09214371B
9.Patent No. US20010018511A1
                                                                                                                                                                                                               LOCATION: (4)
OTHER INFORMATION: Product = Aib
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US-09-214-371-56
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OTHER INFORMATION: X = Leu-NH2
                                                           TYPE: PRT ORGANISM: Artificial Sequence
                                                                                                                                                         LOCATION: (1)
OTHER INFORMATION: x = Ac-Arg
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ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                               66.78;
                                                                                                                                                                                                                                                   NAME/KEY: VARIANT
LOCATION: (8)
OTHER INFORMATION: X = Ac3c
NAME/KEY: VARIANT
LOCATION: (9)
     Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                 6; Conservative
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1 XFMXYWEXX 9
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Best Local Similarity
Matches 6; Conserv
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Best Local Similarity
Matches 4; Conserv
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1 XFMDYWEGX
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                     SEQ ID NO 56
LENGTH: 9
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CURRENT APPLICATION NUMBER: US/09/214,371B
CURRENT PELLING DATE: 1999-03-26
PRIOR PILING DATE: 1997-07-04
NUMBER OF SEQ ID NOS: 83
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 55
LENGTH: 9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 9; Length 9;
1.7e+06;
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CURRENT APPLICATION NUMBER: US/09/214,371B
CURRENT FILING DATE: 1999-03-26
PRIOR APPLICATION NUMBER: PCT/EP97/03549
PRIOR FILING DATE: 1997-07-04
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Pred. No. 1
                                                                                                                                                               APPLICANT: Bottger, Volker
APPLICANT: Bottger, Angelica
APPLICANT: Pickeley, Stephen
APPLICANT: Chene, Patrick
APPLICANT: Garcia Echeverria, Carlos
APPLICANT: Garcia Echeverria, Carlos
APPLICANT: Furet, Pascal
TILLE OF INVENTION: Inhibitors of the I
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Bottger, Volker
Bottger, Angelica
Picksley, Stephen
Chene, Patrick
Hochkeppel, Heinz-Kurt
Garcia-Echeverria, Carlos
Furet, Pascal
                                                                                         Sequence 55, Application US/09214371B Patent No. US20010018511A1 GENERAL INFORMATION:
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Sequence 56, Application US/09214371B
; Patent No. US20010018511A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY: VARIANT
LOCATION: (4)
OTHER INFORMATION: Product = Aib
LOCATION: (7)
LOCATION: (7)
OTHER INFORMATION: Product = Aib
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US-09-214-371-55
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OTHER INFORMATION: X = Ac-Arg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM: Artificial Sequence
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1 XFMXYWXGX 9
1 RFMDYWEGL 9
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Best Local Similarity
Matches 6; Conserv
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APPLICANT: Furet, P
TITLE OF INVENTION:
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APPLICANT:
APPLICANT:
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Gaps

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Sequence 372, Application US/10005480A
| Sequence 372, Application US/10005480A
| Sequence 372, Application No. US20030191073A1
| GENERAL INFORMATION:
| APPLICANT: Adensys
| APPLICANT: Raitano, Arthur B.
| APPLICANT: Faris, Mary
| APPLICANT: Faris, Mary
| APPLICANT: Thuser, Rane S.
| APPLICANT: Warenon and Mary Septicant: Applicant: Mary
| APPLICANT: Marchovits, Aya
| TITLE OF INVENTION: Entitled 161P2F10B Useful in Treatment and Detection of TITLE OF INVENTION: Cancer
| TITLE OF INVENTION: Cancer
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQ ID NOS: 765
SOFTWARE: FastSEQ for Windows Version 4.0
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22.2%; P
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Best Local Similarity 22.2
Matches 2; Conservative
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; ORGANISM: homo sapiens
US-10-283-722-336
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1 EFRKMWDYF 9
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ORGANISM: Homo Sapien
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1 BFRKOMWDYF 9
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Best Local Similarity
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APPLICANT: Aprilas Bid, Pia M.
APPLICANT: Raitano, Arthur B.
APPLICANT: Farias, Mary
APPLICANT: Parias, Mary
APPLICANT: Parias, Mary
APPLICANT: Hubert, Rene S.
APPLICANT: Morrison, Karen Jane Meyrick
APPLICANT: Jakobovits, Aya
TITLE OF INVENTION: Entitled 161P2F10B Useful in Treatment and Detection of
TITLE OF INVENTION: Entitled 161P2F10B Useful in Treatment and Detection of
TITLE OF INVENTION: US/10/662,109A
TITLE OF INVENTION NUMBER: US/10/662,109A
CURRENT APPLICATION NUMBER: US/10/62,109A
CURRENT APPLICATION NUMBER: US/10/62,109A
PRIOR FILING DATE: 2001-01-07
NUMBER OF SEQ ID NOS: 765
SOFTWARE: FREISEQ for Windows Version 4.0
SEQ ID NO 372
LENGTH: 9
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                                                           | Sequence 336, Application US/09793451
| Publication No. US20030157597A1
| Geguence 336, Application US/09793451
| APPLICANT: Daniel E.H. Afar
| APPLICANT: Bartano
| APPLICANT: Gazelle S. Rastegar
| APPLICANT: Steve Chappell Mitchell
| APPLICANT: Rene S. Hubert
| APPLICANT: Rene S. Hubert
| APPLICANT: Mary Faris
| APPLICANT: NUMBER: US/09/793, 451
| CURRENT APPLICATION NUMBER: US/09/793, 451
| CURRENT FILING DATE: 2001-02-26
| PRIOR PILING DATE: 2000-02-24
| PRIOR FILING DATE: 2000-07-13
| NUMBER OF SEQ ID NOS: 752
| SOFTWARE: FastseQ for Windows Version 4.0
| SEMICANT: 9
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100.0%; Score 24; DB 10; Length 9;
Best Local Similarity 22.2%; Pred. No. 1.7e+06;
Matches 2; Conservative 7; Mismatches 0; Indels
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Publication No. US20030165505A1
GENERAL INFORMATION:
APPLICANT: Agensye
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US-10-062-109A-372
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ORGANISM: homo sapiens
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1 GFPPKWSGR 9
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                                           US-09-793-451-336
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                                                                                                                                                                                                                                                                                            US-10-363-208-237, Application US/10363208
Sequence 237, Application US/10363208
Publication No. US20040048243A1
GENERAL INFORMATION:
TITLE OF INVENTION: Methods and Compositions for In Vitro Targeting
FILLE REPRENCE: 005774.P005PCT
CURRENT APPLICATION NESSER: US/10/363,208
CURRENT FILING DATE: 2003-03-07
NUMBER OF SEQ ID NOS: 273
SOFUTANE: PatentIn version 3.1
SEQ ID NO 237
LENGTH: 9
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US-10-258-146A-177
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                                                          Length 9;
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TITLE OF INVENTION: HEAT SHOCK PROTEIN-BASED ANTIVIRAL
TITLE OF INVENTION: VACCINES
FILE REFERENCE: 11390/46301
CURRENT PILING DATE: 2003-09-05
PRIOR APPLICATION NUMBER: PCT/USO1/12568
PRIOR APPLICATION NUMBER: 60/197,462
PRIOR FILING DATE: 2000-04-17
PRIOR FILING DATE: 2000-04-17
PRIOR FILING DATE: 2000-04-17
PRIOR FILING DATE: 2000-04-17
NUMBER OF SEQ ID NOS: 180
SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 100.0%; Score 24; DB 15; Best Local Similarity 22.2%; Pred. No. 1.7e+06; Matches 2; Conservative 7; Mismatches 0;
                                                        Score 24; DB 15;
Pred. No. 1.7e+06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%; Score 24; DB 15;
22.2%; Pred. No. 1.7e+06;
tive 7; Mismatches 0;
                                                                                                   7; Mismatches
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// OTHER INFORMATION: synthetic construct
US-10-363-208-237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 177, Application US/10258146A; Publication No. US20040052812A1; GENERAL INFORMATION: APPLICANT: Mee Hoe APPLICANT: Frank Landsberger
                                                        100.0%;
22.2%; E
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ORGANISM: Artificial Sequence
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                                                     Query Match 100.
Best Local Similarity 22.2
Matches 2; Conservative
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Best Local Similarity 22.2
Matches 2; Conservative
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1 GFPPKWSGR 9
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US-10-258-146A-177
       JS-10-283-903-336
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Publication No. US2003219766A1

GENERAL INFORMATION:

APPLICANT: Arthur B. Raitano

APPLICANT: Steve Chappell Mitchell

APPLICANT: Steve Chappell Mitchell

APPLICANT: Bia M. Challita-Eid

APPLICANT: Pia M. Challita-Eid

APPLICANT: Pia M. Challita-Eid

APPLICANT: Bia M. Challita-Eid

APPLICANT: Pia M. Challita-Eid

APPLICANT: Bia W. Challita-Eid

APPLICANT: Bia W. Challita-Eid

APPLICANT: Pia W. Challita-Eid

APPLICANT: Bia W. Challita-Eid

APPLICANT: Bia W. Challita-Eid

APPLICANT: MAY Jakobovits

TITLE OF INVENTION: EXPRESSED IN VARIOUS CANCERS

TITLE OF INVENTION: EXPRESSED IN VARIOUS CANCERS

TITLE OF INVENTION: EXPRESSED IN VARIOUS CANCERS

TITLE OF INVENTION NUMBER: US/07/793,451

PRIOR PLIING DATE: 2000-02-24

PRIOR APPLICATION NUMBER: 60/184,558

PRIOR PLIING DATE: 2000-07-13

NUMBER OF SEQ ID NOS: 752

NUMBER OF SEQ ID NOS: 752
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       Indels
       ö
     7; Mismatches
                                                                                                                                                                                                                                                                                       APPLICANT: TAYLOR-PAPADIMITROU, JOYCE
TITLE OF INVENTION: BREAST CANCER ANTIGEN
FILE REPERENCE: 1090-36
CURRENT APPLICATION NUMBER: US/10/334,726
CURRENT FILING DATE: 2003-01-02
PRIOR PELING DATE: 2000-08-25
PRIOR FILING DATE: 2000-08-25
PRIOR FILING DATE: 1999-03-19
PRIOR FILING DATE: 1999-03-19
PRIOR FILING DATE: 1999-03-19
PRIOR FILING DATE: 1999-03-19
SRIOR FILING DATE: 1999-03-19
SRIOR FILING DATE: 1999-03-19
SRIOR FILING DATE: 1999-03-19
SOFTWARE: PATENT NOWER: 1598-09-20
NUMBER OF SEQ ID NOS: 324
SOFTWARE: PATENT NOR: 2.0
SEQ ID NO 212
LENGTH: 9
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                                                                                                                                                                                                                    ; Sequence 212, Application US/10334726
; Publication No. US20030211521A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Artificial Sequence
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Matches 2; Conservative
  Conservative
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ORGANISM: homo sapiens
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1 GFPPKWSGR 9
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1 VFEPSWEEF 9
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Matches
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APPLICANT: Chesnut, Robert
APPLICANT: Chesnut, Robert
APPLICANT: Chesnut, Robert
APPLICANT: Epimmune Inc.
TITLE OF INVENTION: Uning Peptide and Nucleic Acid Compositions
TITLE OF INVENTION: Using Peptide and Nucleic Acid Compositions
TITLE OF INVENTION: Using Peptide and Nucleic Acid Compositions
TITLE OF INVENTION: Using Peptide and Nucleic Acid Compositions
FILE REPERBACE: 2060.006007
CURRENT APPLICATION NUMBER: US/10/654,601
CURRENT FILING DATE: 1999-01-27
PRIOR APPLICATION NUMBER: US 08/978,291
PRIOR PILING DATE: 1999-11-10
PRIOR PILING DATE: 1997-11-25
PRIOR APPLICATION NUMBER: US 08/92,360
PRIOR APPLICATION NUMBER: US 08/461,603
PRIOR FILING DATE: 1996-03-13
PRIOR PILING DATE: 1996-03-13
PRIOR PILING DATE: 1994-12-01
PRIOR APPLICATION NUMBER: US 08/461,603
PRIOR APPLICATION NUMBER: US 08/461,603
PRIOR APPLICATION NUMBER: US 08/44,824
PRIOR APPLICATION NUMBER: US 08/276,513
PRIOR PILING DATE: 1994-07-21
PRIOR PILING DATE: 1994-07-21
PRIOR APPLICATION NUMBER: US 08/278,634
PRIOR FILING DATE: 1994-07-21
PRIOR APPLICATION NUMBER: US 08/205,713
PRIOR PILING DATE: 1994-07-21
PRIOR PILING DATE: 1994-07-21
PRIOR PILING DATE: 1994-07-21
PRIOR PILING DATE: US 08/205,713
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                     APPLICANT: MAGNIRE, DIANE
APPLICANT: DECKMAN, INGRID
APPLICANT: SPURLINO, JOHN
TITLE OF INVENTION: HOME-INHIBITOR COMPLEXES AND USES THEREOF
TITLE OF INVENTION: HOME-INHIBITOR COMPLEXES AND USES THEREOF
FILE REFERENCE: PRD-2137-USANP
CURRENT APPLICATION NUMBER: US/10/685,838
CURRENT FILING DATE: 2002-10-15
PRIOR APPLICATION NUMBER: 60/418,350
PRIOR FILING DATE: 2002-10-16
NUMBER OF SEQ ID NOS: 12
SOFTWARE: Patentin Ver. 3.2
SEQ ID NO 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OTHER INFORMATION: Description of Artificial Sequence: Synthetic OTHER INFORMATION: peptide
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100.0%; Score 24; DB 16;
Best Local Similarity 22.2%; Pred. No. 1.7e+06;
Matches 2; Conservative 7; Mismatches 0;
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SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 774, Application US/10654601
Publication No. US20050063983A1
GENERAL INFORMATION:
APPLICANT: Sette, Alessandro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sidney, John
Southwood, Scott
Vitiello, Maria A.
Livingston, Brian D.
Cells, Beteban
Kubo, Ralph T.
Grey, Howard M.
                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT ORGANISM: Artificial Sequence
      GRASBERGER, BRUCE
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1 RFMDYWEGL 9
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US-10-654-601-774
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Publication No. US20040170955A1
GENERAL INFORMATION:
GENERAL INFORMATION:
TITLE OF INVENTION: Human and Mouse Targeting Peptides Identified by Phage Display
FILE REFERENCE: 005774.P003PCT
CURRENT APPLICATION NUMBER: US/10/363,204
CURRENT PILING DATE: 203-03-07
NUMBER OF SEQ ID NOS: 251
SOFTWARE: Patentin version 3.1
                                                                                                                                                                 Sequence 1, Application US/10340179
Publication No. US20040138413A1
GENERAL INFORMATION:
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Rothschild, Kenneth J.
APPLICANT: Gite, Sadanad
APPLICANT: Olejnik, Jerzy
APPLICANT: Lim, Mark
TITLE OF INVENTION: Compositions and Methods for Immunoaffinity Purification
FILE REFERENCE: AMBR. 05707
CURRENT APPLICATION NUMBER: US/10/340,179
CURRENT FILING DATE: 2003-01-10
NUMBER OF SEQ ID NOS: 36
SOFTWARE: Patentin version 3.2
SEQ ID NO
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100.0%; Score 24; DB 16;
Best Local Similarity 22.2%; Pred. No. 1.7e+06;
Matches 2; Conservative 7; Mismatches 0;
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// OTHER INFORMATION: synthetic construct
US-10-363-204-198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 16
US-10-685-838-12
; Sequence 12, Application US/10685838
; Publication No. US20040197893A1
; GENERAL INFORMATION:
; APPLICANT: SHUBERT, CARSTEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM: Artificial Sequence
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Best Local Similarity 22.2
Matches 2, Conservative
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1 TFSDLWKLL 9
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1 NFQPVWLCL 9
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Best Local Similarity
Matches 2; Conserv
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LENGTH: 9
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TITLE OF INVENTION: Using Peptide and Nucleic Acid Compositions
TITLE OF INVENTION: Using Peptide and Nucleic Acid Compositions
FILE REFERENCE: 2060.006007
CURRENT APPLICATION NUMBER: US/10/654,601
CURRENT FILING DATE: 2003.09-04
PRIOR FILING DATE: 1999-01-27
PRIOR PELING DATE: 1999-01-27
PRIOR PELING DATE: 1999-11-10
PRIOR FILING DATE: 1997-11-10
PRIOR FILING DATE: 1997-03-12
PRIOR FILING DATE: 1997-03-13
PRIOR FILING DATE: 1997-03-13
PRIOR FILING DATE: 1996-03-13
PRIOR FILING DATE: 1994-11-20
PRIOR FILING DATE: 1994-11-01
PRIOR PELING DATE: 1994-11-01
PRIOR PELING DATE: 1994-11-01
PRIOR PELING DATE: 1994-11-01
PRIOR PELING DATE: 1994-07-21
PRIOR PELING DATE: 1994-07-21
PRIOR FILING DATE: 1994-07-21
PRIOR PELING DATE: 1994-03-04
PRIOR FILING DATE: 1994-03-04
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SOFTWARE: FastSEQ for Windows Version 4.0
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                                                                                                                                                                                                  0; Indels
                                                                                                                                           ; Score 24; DB 17;
Pred. No. 1.7e+06;
7; Mismatches 0;
                                            ; TYPE: PRT
; ORGANISM: Orthohepadnaviridae hepatitis B virus
US-10-654-601-774
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US-10-654-601-2028
                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 2028, Application US/10654601
Publication No. US20050063983A1
GENERAL INFORMATION:
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Vitiello, Maria A.
Livingston, Brian D.
Celis, Esteban
Kubo, Ralph T.
Grey, Howard M.
Chesnut, Robert
Epimmune Inc.
                                                                                                                                              100.0%;
22.2%; P
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APPLICANT: Sidney, John
                                                                                                                                         Query Match
Best Local Similarity 22.2 Matches 2; Conservative
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Best Local Similarity 22.2
Matches 2; Conservative
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; SEQ ID NO 774
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Sequence 230, Application US/10363205
Publication No. US20050074747A1
Sequence 230, Application US/10363205
Publication No. US20050074747A1
GENERAL INFORMATION:
APPLICANT: Board of Regents, The University of Texas System
TITLE OF INVENTION: Biopanning and Rapid Anaylsis of Selective Interactive Ligands (
FILE REFERENCE: 005774.P004PCT
CURRENT APPLICATION UNMBER: US/10/363,205
UNMBER OF SEQ ID NOS: 289
NUMBER OF SEQ ID NOS: 289
SOFTWARE: PatentIn version 3.1
SEQ ID NO 230
LENGTH: 9
                                                                                                                                                                                        APPLICANT: Tahara, Hideaki
APPLICANT: Tahara, Yolchi
APPLICANT: Tahara, Hideaki
APPLICANT: Japan as represented by
APPLICANT: Japan as represented by
APPLICANT: Tahara and Polypeptides Relating to Human Colon Cancers
TITLE OF INVENTION: Genes and Polypeptides Relating to Human Colon Cancers
TITLE OF INVENTION: 082379-003300US
CURRENT PAPLICATION NUMBER: US 60/386,985
FRIOR APPLICATION NUMBER: US 60/415,209
FRIOR APPLICATION NUMBER: US 60/415,209
FRIOR APPLICATION NUMBER: US 60/451,013
FRIOR APPLICATION NUMBER: WO PCT/JP03/07006
FRIOR FILING DATE: 2003-02-08
FRIOR APPLICATION NUMBER: WO PCT/JP03/07006
FRIOR FILING DATE: 2003-05-08
FRIOR FILING DATE: 2003-05-08
FRIOR APPLICATION NUMBER: WO PCT/JP03/07006
FRIOR FILING DATE: 2003-05-08

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100.0%; Score 24; DB 17;
Best Local Similarity 22.2%; Pred. No. 1.7e+06;
Matches 2; Conservative 7; Mismatches 0;
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OTHER INFORMATION: synthetic construct
; Sequence 91, Application US/10916064; Publication No. US20050069930A1; GENERAL INFORMATION:
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CFPRVWSRC
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                                                                               APPLICANT: LANE, DAVID P
APPLICANT: BOTTGER, VOLKER
APPLICANT: BOTTGER, ANGELIKA
APPLICANT: BOTTGER, ANGELIKA
APPLICANT: PICKELEY, STEVEN M.
APPLICANT: PICKELEY, STEVEN M.
APPLICANT: GENERALIA, CARLOS
APPLICANT: CHENE, PATRICK
APPLICANT: CHENE, PATRICK
APPLICANT: CHENE, PATRICK
APPLICANT: PORCY, PASCAL
TITLE OF INVENTION: INHIBITORS OF THE INTERACTION BETWEEN P53 AND MDM2
FILE REFERENCE: 397-49.0002 APC CON
CURRENT APPLICATION NUMBER: US/10/927,262A
CURRENT FILING DATE: 2004-08-25
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100.0%; Score 24; DB 18; Length 9;
Best Local Similarity 100.0%; Pred. No. 1.7e+06;
Matches 9; Conservative 0; Mismatches 0; Indels
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OTHER INFORMATION: Met, Ile, Thr, Arg, Ala, or Ser
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OTHER INFORMATION: Gly, Gln, Thr, Ala, or Asp
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PRIOR PELING DATE: 1099-03-26
PRIOR PELING DATE: 1999-03-26
PRIOR PELING DATE: 1999-03-26
PRIOR PELING DATE: 1997-07-04
PRIOR PELING DATE: 1996-03-56
PRIOR PELING DATE: 1996-04-07
PRIOR PELING DATE: 1997-04-07
PRIOR PELING DATE: 1997-04-07
NUMBER OF SEQ ID NOS: 85
SEQ ID NO 11
SEQ ID NO 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: MOD RES
LOCATION: (7)
OTHER INFORMATION: Glu, Thr, Ala, Phe,
                Sequence 11, Application US/10927262A Publication No. US20050137137A1 GENERAL INFORMATION:
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; OTHER INFORMATION: Phe, Gln, or Leu
US-10-927-262A-11
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OTHER INFORMATION:
FEATURE:
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NAME/KEY: MOD_RES
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-10-927-262A-11
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GENERAL INVORMATION:

APPLICANT: LANE, DAVID P

APPLICANT: BOTTGER, VOLKER

APPLICANT: BOTTGER, ANGELIKA

APPLICANT: BOTTGER, ANGELIKA

APPLICANT: BOTTGER, ANGELIKA

APPLICANT: POTTGER, ANGELIKA

APPLICANT: CHENE, PATRICK

APPLICANT: ON UNMERE: US, 10,927, 262A

CURRENT APPLICATION NUMBER: US, 10,927, 262A

CURRENT FILING DATE: 1999-03-26

PRIOR FILING DATE: 1999-03-26

PRIOR FILING DATE: 1996-07-05

PRIOR FILING DATE: 1997-04-07

NUMBER OF SEQ ID NOS: 85

SOFTWARE: PATRICK

PRIOR PATRICK

PRIOR FILING DATE: 1997-04-07

NUMBER OF SEQ ID NOS: 85

PRIOR PATRICK

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APPLICANT: CHENE, PATRICK
APPLICANT: CHENE, PARTICK
APPLICANT: CHENE, PASCAL
TITLE OF INVENTION INHIBITORS OF THE INTERACTION BETWEEN PS3 AND MDM2
TITLE OF INVENTION INHIBITORS OF THE INTERACTION BETWEEN PS3 AND MDM2
TITLE OF INVENTION INHIBITORS OF THE INTERACTION BETWEEN PS3 AND MDM2
CURRENT FILING DATE: 2004-08-25
PRIOR PAPLICATION NUMBER: 09/214,371
PRIOR PILING DATE: 1999-03-26
PRIOR APPLICATION NUMBER: GB 9614197.3
PRIOR FILING DATE: 1996-07-05
PRIOR PELING DATE: 1996-07-05
PRIOR APPLICATION NUMBER: GB 9707041.1
PRIOR PILING DATE: 1996-07-05
PRIOR APPLICATION NUMBER: GB 9707041.1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OTHER INFORMATION: Description of Artificial Sequence: Synthetic; OTHER INFORMATION: Peptide US-10-927-262A-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
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HOCHKEPPEL, HBINZ-KURT
GARTA-EVEHEVERRIA, CARLOS
CHENE, PATRICK
FORET, PASCAL
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Sequence 15, Application US/10927262A publication No. US20050137137A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%;
22.2%; I
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ORGANISM: Artificial Sequence
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APPLICANT: BOTTGER, VOLKER
APPLICANT: BOTTGER, ANGELIKA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 22.2
Matches 2; Conservative
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1 RFMDYWEGL 9
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TITLE OF INVENTION: INHIBITORS OF THE INTERACTION BETWEEN PS3 AND MDM2 FILE REFERENCE: 39749-0002 APC CON CURRENT APPLICATION NUMBER: US/10/927, 262A CURRENT FILING DATE: 2004-08-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ) OTHER INFORMATION: Description of Artificial Sequence: Synthetic; OTHER INFORMATION: Peptide
US-10-927-262A-59
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Pred. No. 1.7e+06;
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US-10-924-377-25
Sequence 25, Application US/10924377
Sequence 25, Application US/10924377
Publication No. US20050181458A1
GENERAL INFORMATION:
APPLICANT: Harding, Fiona
APPLICANT: Mucha, Jeannette Marie
TITLE OF INVENTION: HPV CD8+ T-Cell Epitopes
CURRENT APPLICATION NUMBER: US/10/924,377
CURRENT PILING DATE: 2004-08-23
PRIOR APPLICATION NUMBER: US 60/500,452
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7; Mismatches
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PRIOR APPLICATION NUMBER: PCT/EP97/03549
PRIOR FILING DATE: 1997-0-04
PRIOR FILING DATE: 1996-07-04
PRIOR FILING DATE: 1996-07-05
PRIOR APPLICATION NUMBER: GB 9707041.1
PRIOR PILING DATE: 1997-04-07
NUMBER OF SEQ ID NOS: 85
SOFTWARE: PATENTIN VET. 3.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQ ID NOS: 25
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 25
LENGTH: 9
                                                                                                                                                                                                                                                                                                  PICKSLEY, STEVEN M.
HOCHKEPPEL, HEINZ-KURT
GARCIA-ENELVERRIA, CARLOS
CHENE, PATRICK
FURET, PASCAL
                                                                                                                                                                         ; Sequence 59, Application US/10927262A; Publication No. US20050137137A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION NUMBER: 09/214,371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.08;
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ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       22.28;
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APPLICANT: BOTTGER, VOLKER
APPLICANT: BOTTGER, ANGELIKA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 100.
Best Local Similarity 22.2
Matches 2; Conservative
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1 RFMXYWEXL 9
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APPLICANT: HOCHKEPPEL, HEINZ-KURT
APPLICANT: GARCIA-ECHEVERRIA, CARLOS
APPLICANT: CHENE, PARRICK
APPLICANT: CHENE, PARRICK
TITLE OF INVENTION: INHIBITORS OF THE INTERACTION BETWEEN P53 AND MDM2
FILE REFERENCE: 39749.0002 APC CON
CURRENT APPLICATION UNMBER: US/10/927, 262A
CURRENT FILING DATE: 2004-09-25
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                                                                                                    OTHER INFORMATION: Description of Artificial Sequence: Synthetic OTHER INFORMATION: Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OTHER INFORMATION: Description of Artificial Sequence: Synthetic OTHER INFORMATION: Peptide
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1.7e+06;
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                                                                                                                                                                                                                                                                                                                                                                                                               5; Mismatches
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PRIOR FILING DATE: 2004-08-25
PRIOR FILING DATE: 1999+03-26/214,371
PRIOR FILING DATE: 1999+03-26
PRIOR PRILING DATE: 1997-07-04
PRIOR PILING DATE: 1997-07-04
PRIOR PILING DATE: 1997-07-05
PRIOR PILING DATE: 1997-07-05
PRIOR PILING DATE: 1997-07-05
PRIOR FILING DATE: 1997-07-05
PRIOR FILING DATE: 1997-04-07
NUMBER OF SEQ ID NOS: 85
SEQ ID NO 56
LENGTH: 9
LENGTH: 9
                                                                                                                                                                                                                                                                                                                                                                  Score 24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 56, Application US/10927262A
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                                                       ORGANISM: Artificial Sequence FEATURE:
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ORGANISM: Artificial Sequence
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                                                                                                                                                                                                                                                                                                                                                                                           44.48;
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BOTTGER, VOLKER
BOTTGER, ANGELIKA
                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 44.4
Matches 4; Conservative
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Best Local Similarity 44.4
Matches 4; Conservative
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                                                                                                                                                                                         LOCATION: (4) TOTHER INFORMATION: AID
                                                                                                                                                                                                                                                                              ; LOCATION: (7) ; OTHER INFORMATION: Aib US-10-927-262A-55
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                                                                                                                                            FEATURE:
NAME/KEY: MOD_RES
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SEO ID NO 55
                                          TYPE: PRT
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Gaps

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Length 9; Indels

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TITLE OF INVENTION: Inhibitors of the Interaction of P53 and MDM2 FILE REFERENCE: 4-20937/A/PCT CURRENT APPLICATION NUMBER: US/09/214,371B CURRENT FILING DATE: 1999-03-26 PRIOR APPLICATION NUMBER: PCT/EP97/03549 PRIOR FILING DATE: 1997-07-04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
ORGANISM: Artificial Sequence
PEATURE:
OTHER:
OTHER INFORMATION: Description of Artificial Sequence:peptide
OTHER INFORMATION: Xaa represents any amino acid and proline,
OTHER INFORMATION: phenylalanine, aspartic acid, tyrosine,
OTHER INFORMATION: tryptophan and leucine are L-amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 100.0%; Score 24; DB 9; Length 10; Best Local Similarity 66.7%; Pred. No. 1.1e+04; Matches 6; Conservative 3; Mismatches 0; Indels
                                                                                                                                                                                                                                                                           Query Match 100.0%; Score 24; DB 20; Best Local Similarity 22.2%; Pred. No. 1.7e+06; Matches 2; Conservative 7; Mismatches 0;
PRIOR APPLICATION NUMBER: PCT/US99/13789
PRIOR FILING DATE: 1999-06-17
PRIOR FILING DATE: 1998-06-17
NUMBER OF SEQ ID NOS: 1492
SOFTWARE: PastSEQ for Windows Version 4.0
SEQ ID NO 1053
LENGTH: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bottger, Volker
Bottger, Angelica
Picksley, Stephen
Chene, Patrick
Hochkeppel, Heinz-Kurt
Garcia-Echeverria, Carlos
                                                                                                                                                                                                            ; OTHER INFORMATION: Synthetic Peptide US-11-051-411-1053
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 3, Application US/09214371B Patent No. US20010018511A1 GENERAL INFORMATION:
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Patent No. U820010018511A1
GENERAL INFORMATION:
APPLICANT: Lane, David
APPLICANT: Bottger, Volker
APPLICANT: Bottger, Nagelica
APPLICANT: Picksley, Stephen
                                                                                                                                                           TYPE: PRT
ORGANISM: Artificial Sequence
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SOFTWARE: Patentin Ver. 2
SEQ ID NO 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Furet, Pascal
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2 XFXDYWXXL 10
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1 TFSDLWKLL 9
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APPLICANT:
APPLICANT:
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US-09-214-371-4
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APPLICANT:
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APPLICANT: Sidney, John
APPLICANT: Sidney, John
APPLICANT: Southwood, Scott
APPLICANT: Southwood, Scott
APPLICANT: Celis, Esteban
APPLICANT: Celis, Esteban
APPLICANT: Celis, Esteban
APPLICANT: Reogh, Elissa
APPLICANT: Neogh, Elissa
APPLICANT: Celis, Esteban
APPLICANT: Celis, Esteban
APPLICANT: Celis, Esteban
APPLICANT: Celis, Esteban
APPLICANTION: p53 Using Peptide And Nucleic Acid Compositions
FILE REPERBURE: 2060.012000
CURRENT APPLICATION NUMBER: US/09/458,297
PRIOR APPLICATION NUMBER: US/09/458,297
PRIOR PLING DATE: 1999-12-10
PRIOR FILING DATE: 1998-02-03
PRIOR FILING DATE: 1998-02-03
                        Gaps
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                      Indels
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  Pred. No. 1.7e+06; 7; Mismatches 0;
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100.0%; Score 24; DB 20;
Best Local Similarity 22.2%; Pred. No. 1.78+06;
Matches 2; Conservative 7; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; OTHER INFORMATION: Synthetic Peptide US-11-051-411-346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 1053, Application US/11051411 Publication No. US20050196403A1 GENERAL INFORMATION: APPLICANT: Fikes, John
                                                                                                                                                                                          Sequence 346, Application US/11051411
Publication No. US20050196403A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Artificial Sequence FEATURE:
Similarity 22.3
2, Conservative
                                                          1 XFXXXWXXX 9
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1 SFVCPWCAS 9
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1 TFSDLWKLL 9
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                                                                                                                                                       RESULT 27
US-11-051-411-346
  Best Local
Matches
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Gaps

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APPLICATION NUMBER: US 08/318,157
FILING DATE: 05-007-1994
ATTORNEY/AGENT INFORMATION:
NAME: SAXE, Bernhard D.
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CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 25, Application US/09253794
Patent No. US20020018750A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY: USA
ZIP: 20007-5109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:
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Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2 XFXXXWXXX 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 XFXXXWXXX 9
                                                                                                                                                                                                                                                                                                                                                 LOCATION: (6)
OTHER INFORMATION:
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                               NAME/KEY: VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY: VARIANT LOCATION: (8)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 32
US-09-253-794-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-214-371-5
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APPLICANT: Chene, Patrick

APPLICANT: Chene, Patrick

APPLICANT: Horckeppel, Heinz-Kurt

APPLICANT: Garcia-Echeverria, Carlos

APPLICANT: Garcia-Echeverria, Carlos

APPLICANT: Garcia-Echeverria, Carlos

APPLICANT: Furet, Pascal

FILE REFERENCE: 4-20937/A/PCT of the Interaction of P53 and MDM2

FILE REFERENCE: 4-20937/A/PCT of the Interaction of P53 and MDM2

FILE REFERENCE: 1999-03-26

FURRENT APPLICATION NUMBER: US/09/214,371B

PRIOR APPLICATION NUMBER: PCT/EP97/03549

PRIOR APPLICATION NUMBER: PCT/EP97/03549

NUMBER OF SEQ ID NOS: 83

SOFTWARE: Patentin Ver. 2.0

SEQ ID NO 4

LENGTH: 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; OTHER INFORMATION: x=phenylalanine, glutamine or preferably leucine; OTHER INFORMATION: Xaa at position 2, 4, 8 and 9 is any amino acid US-09-214-371-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        x = arginine, histidine, glutamic acid, cysteine
serine or preferably aspartic acid.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: Inhibitors of the Interaction of P53 and MDM2 FILE REFERENCE: 4-20937/A/PCT
CURRENT APPLICATION NUMBER: US/09/214,3718
CURRENT FILING DATE: 1997-03-26
PRIOR APPLICATION NUMBER: PCT/EP97/03549
PRIOR FILING DATE: 1997-07-04
NUMBER OF SEQ ID NOS: 83
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 5
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                                                                                                                                                                                                                                                                                                                                                                                                                                    x=proline, leucine, glutamic acid, cysteine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         x = histidine, phenylalanine, or preferably tyrosine
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                                                                                                                                                                                                                                                                                                                                                                     OTHER INFORMATION: Description of Artificial Sequence:peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 10;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 24; DB 9; L
100.0%; Pred. No. 1.1e+04;
ative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eane, David
Bottger, Volker
Bottger, Angelica
Picksley, Stephen
Chene, Patrick
Hochkeppel, Heinz-Kurt
Garcia-Echeverria, Carlos
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 5, Application US/09214371B Patent No. US20010018511A1
                                                                                                                                                                                                                                                                                                                             ORGANISM: Artificial Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                            glutamine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Furet, Pascal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2 XFXXXWXXX 10
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                                                                                                                                                                                                                                                                                                                                                                                                                                 OTHER INFORMATION: X OTHER INFORMATION: 9 NAME/KEY: VARIANT LOCATION: (5)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LOCATION: (6)
OTHER INFORMATION: x
OTHER INFORMATION: t
NAME/KEY: VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OTHER INFORMATION:
OTHER INFORMATION:
NAME/KEY: VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: VARIANT LOCATION: (1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-214-371-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
APPLICANT:
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APPLICANT:
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                                                                                                                                                                                                                                                                                                         TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE:
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Gaps
OTHER INFORMATION: x = proline, leucine, glutamic acid, cysteine or OTHER INFORMATION: glutamine NAME/KEY: VARIANT
                                                                                        LOCATION: (2)

COTHER INFORMATION: x = arginine, asparagine, alanine, threonine or OTHER INFORMATION: valine
NAME/KEY: VARIANT
LOCATION: (4)
                                                                                                                                                                                                                                               OTHER INFORMATION: X = methionine, isoleucine, threonine, arginine, OTHER INFORMATION: alanine or serine
                                                                                                                                                                                                                                                                                                        NAME/KEY: VARIANT
LOCATION: (5)
OTHER INFORMATION: X= arginine, histidine, glutamic acid, cysteine,
OTHER INFORMATION: serine or preferably aspartic acid.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: HANSEN, Hans J.
ARMOUR, KALHYYN L.
TITLE OF INVENTION: CDR-GRAFTED TYPE III ANTI-CEA HUMANIZED
MOUSE MONOCLONAL ANTIBODIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OTHER INFORMATION: X= glycine, glutamine, threonine, alanine or OTHER INFORMATION: aspartic acid NAME/KEY: VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OTHER INFORMATION: Xaa = phenylalanine, glutamine or preferably
OTHER INFORMATION: leucine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         X = histidine, phenylalanine or preferably
tyrosine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 24; DB 9; Length 10; 100.0%; Pred. No. 1.1e+04; Live 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OTHER INFORMATION: X = glutamic acid, threonine, alanine, OTHER INFORMATION: phenylalanine or serine NAME/KEY: VARIANT LOCATION: (9)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES: 58
CORRESPONDENCE ADDRESS:
ADDRESSEE: Foley & Lardner
STREET: 3000 K Street, N.W., Suite 500
CITY: Washington
STATE: D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/253,79
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                                                APPLICANT: Williams, Stephen A.
TITLE OF INVENTION: Nucleic Acid Molecules, Polypeptides and
TITLE OF INVENTION: Uses Therefor, Including Diagnosis and Treatment of
TITLE OF INVENTION: Uses Therefor, Including Diagnosis and Treatment of
TITLE OF INVENTION: Uses Therefor Including Diagnosis and Treatment of
TITLE OF INVENTION: Uses Therefor Including Diagnosis and Treatment of
TITLE OF INVENTION: 2010-01.02
CURRENT APPLICATION NUMBER: US 60/194,504
PRIOR FILING DATE: 2000-04-30
PRIOR FILING DATE: 2000-04-30
PRIOR PILING DATE: 2000-11-28
NUMBER OF SEQ ID NOS: 492
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Proteom Ltd
TITLE OF INVENTION: Complementary peptide ligands from the human genome
FILE REFERENCE: Human patent
CURRENT APPLICATION NUMBER: US/09/572,404B
CURRENT PILING DATE: 2000-05-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
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; Sequence 483, Application US/09809638
; Publication No. US20030059895A1
; GENERAL INFORMATION:
; APPLICANT: Mary Faris
APPLICANT: Steve Chappell Mitchell
APPLICANT: Daniel E.H. Afar
; APPLICANT: Arbur B. Raitano
APPLICANT: Aya Jakobovits
; TITLE OF INVENTION: 125P5C8: A TISSUE SPECIFIC PROTEIN
; TITLE OF INVENTION: 125P5C8: A TISSUE SPECIFIC
; TITLE OF INVENTION: 125P5C8: A TISSUE SPECIFIC
; CURRENT PILIG DATE: 2011-03-14
; CURRENT PILIG DATE: 2011-03-14
; UNMBER OF SEQ ID NOS: 746
; SOFTWARE: FRAESEQ for Windows Version 4.0
; INNORTH: 10 NO 483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 100.0%; Score 24; DB 9; Length 10; Best Local Similarity 22.2%; Pred. No. 1.1e+04; Matches 2; Conservative 7; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
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22.2%; Pred. No. 1.1e+04;
tive 7; Mismatches 0;
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US-09-572-404B-788
S. Sequence 788, Application US/09572404B
; Publication No. US20030078374A1
; GENERAL INFORMATION:
          Townsend, Robert Reid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity 22.2
Matches 2; Conservative
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US-09-809-638-483
                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM: homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 XFXXXWXXX 9
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1 IFFCAWCTA 9
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1 VFSLQWGEV
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US-09-809-638-483
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US-09-881-276-11
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| Sequence 11, Application US/09881276
| Patent No. US20020031761A1
| GENERAL INPORMATION:
| APPLICANT: Whellhan, E. Fayelle
| TITLE OF INVENTION: Binding Moieties for Human Parvovirus B19
| TITLE REFERENCE: DXX-009.0 US-2
| CURRENT PELLING DATE: 1009/081,276
| CURRENT FILING DATE: 2001-06-14
| PRIOR APPLICATION NUMBER: 09/669,271
| PRIOR PILING DATE: 1998-11-05
| NUMBER OF SEQ ID NOS: 27
| SOFTWARE: Microsoft Word 97
| SEQ ID NO 11
| LENGTH: 10
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Patent No. US20020164668A1
Patent No. US20020164668A1
APPLICANT: Durham, L.Kathryn
APPLICANT: Friedman, David L.
APPLICANT: Kimmel, Lida H.
APPLICANT: Kimmel, Lida H.
APPLICANT: Parekh, Rajesh Bhikhu
APPLICANT: Porter. David M.
APPLICANT: Potter. David M.
APPLICANT: Rohlff, Christian
APPLICANT: Stiger. Thomas R.
APPLICANT: Stiger. Thomas R.
APPLICANT: Stiger. Thomas R.
                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 22.2%; Pred. No. 1.1e+04;
Matches 2; Conservative 7; Mismatches 0; Indels
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                  REFERENCE CONTRIBER: 18733/464

TELECOMPUNICATION INFORMATION:
TELEPHONE: (202)672-5300
TELEPHONE: (202)672-5399
TELER: 904136
INFORMATION FOR SEQ ID NO: 25:
SEQUENCE CHARACTERISTICS:
LENGTH: 10 amino acids
TYPE: amino acid
STRANDEDNESS: <Unknown>
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 25:
US-09-253-794-25
REGISTRATION NUMBER: 28,665
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22.2%; F
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Best Local Similarity 22.2
Matches 2; Conservative
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2 YFGFPWFAY 10
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US-09-881-276-11
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Arthur B. Raitano
APPLICANT: Daniel E.H. Afar
APPLICANT: Gazelle S. Rastegar
APPLICANT: Gazelle S. Rastegar
APPLICANT: Steve Chappell Mitchell
APPLICANT: Steve Chappell Mitchell
APPLICANT: Rene S. Hubert
APPLICANT: Pia M. Challita-Eid
APPLICANT: Pay Jackboovits
TITLE OF INVENTION: DAPRESSED IN VARIOUS CANCERS
TITLE OF INVENTION: EXPRESSED IN VARIOUS CANCERS
TITLE OF INVENTION: EXPRESSED IN VARIOUS CANCERS
FILE REFERENCE: 129.2010-02-26
CURRENT APPLICATION NUMBER: 60/184,558
PRIOR APPLICATION NUMBER: 60/184,558
PRIOR PILING DATE: 2000-02-24
PRIOR PILING DATE: 2000-07-13
NUMBER OF SEQ ID NOS: 752
SOFTWARE FASTESEQ for Windows Version 4.0
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Sequence 13, Application US/10005646

Publication No. US20020151496A1

GENERAL INFORMATION:

APPLICANT: BRINGHANN, PETER W.
APPLICANT: MITROVIC, BRANISLAVA

APPLICANT: MITROVIC, BRANISLAVA

TITLE OF INVENTION: NOVEL FIBROBLAST GROWTH FACTORS

FILE REFERENCE: BERLX 87

CURRENT PILIGATION NUMBER: US/10/005,646

CURRENT PILIG DATE: 2001-12-07

PRIOR APPLICATION NUMBER: 60/251,837

PRIOR FILING DATE: 2000-12-08

NUMBER OF SEQ ID NOS: 16

SEQ ID NO 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 24; DB 10; 22.2%; Pred. No. 1.1e+04; tive 7; Mismatches 0;
       SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 106
                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 410, Application US/09793451; Publication No. US20030157597A1; GENERAL INFORMATION:
                                                                                                                                                Query Match
Best Local Similarity 22.43,
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Best Local Similarity 22.2
....neg 2; Conservative
                                                 LENGTH: 10
TYPE: PRT
ORGANISM: homo sapiens
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                                                                                                                                                                  ; OTHER INFORMATION: sequence located in PAI1 OR PLANH1 at 193-202 and may interact wi
; OTHER INFORMATION: Sequence 787 in this patent.
US-09-572-404B-788
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; OTHER INFORMATION: Sequence 789 in this patent.
US-09-572-4048-790
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 790, Application US/09572404B
Publication No. US20030078374A1
GENERAL INFORMATION:
APPLICANT: Proteom Ltd
TITLE OF INVENTION: Complementary peptide ligands from the human genome
TITLE OF INVENTION: Complementary peptide ligands from the human genome
CURRENT APPLICATION NUMBER: US/09/572,404B
CURRENT FILING DATE: 2000-05-17
NUMBER OF SEQ ID NOS: 4203
SOFTWARE: ProtPatent version 1.0
SEQ ID NO 790
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APPLICANT: Aya Jakobovits
TITLE OF INVENTION: 103P2D6: TISSUE SPECIFIC PROTEIN HIGHLY
TITLE OF INVENTION: 103P2D6: TISSUE SPECIFIC PROTEIN HIGHLY
TITLE OF INVENTION: 103P2D6: TISSUE SPECIFIC PROTEIN HIGHLY
TITLE OF INVENTION: WIMBER: US/09/793,451
CURRENT FILING DATE: 2001-02-26
PRIOR FILING DATE: 2000-07-24
PRIOR FILING DATE: 2000-07-24
PRIOR FILING DATE: 2000-07-13
NUMBER OF SEQ ID NOS: 752
                                                                                                                                                                                                                                                              Query Match 100.0%; Score 24; DB 10; Length 10; Best Local Similarity 22.2%; Pred. No. 1.1e+04; Matches 2; Conservative 7; Mismatches 0; Indels
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US-09-793-451-106
US-09-793-451-106
Sequence 106, Application US/09793451
Sequence 106, Application US/09793451
GENERAL INFORMATION:
APPLICANT: Arthur B. Raitano
APPLICANT: Gazelle S. Rastegar
APPLICANT: Steve Chappell Mitchell
APPLICANT: Rene S. Hubert
APPLICANT: Pia M. Chalita-Eid
NUMBER OF SEQ ID NOS: 4203
SOFTWARE: ProtPatent version 1.0
SEQ ID NO 788
LENGTH: 10
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Best Local Similarity 22.2
Matches 2; Conservative
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ORGANISM: Homo Sapiens
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                                                                                              TYPE: PRT
ORGANISM: Homo Sapiens
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i LENGTH: 10
i TYPE: PRT
i ORGANISM: Artificial Sequence
i FEATURE:
i OTHER INFORMATION: Description of Artificial Sequence: Illustrative
i OTHER INFORMATION: peptide
US-10-005-646-13

Query Match
Best Local Similarity 22.2%; pred. No. 1.1e+04;
Matches 2; Conservative 7; Mismatches 0; Indels 0; Gaps
Qy 1 XFXXXWXXX 9
Qy 1 XFXXXWXXX 9

Qy 1 XFXXXWXX 9

Qy 1 QFEENWINT 9

Search Completed: October 19, 2005, 15:51:00
Job time: 115.882 secs
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   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Lepidosauria; Squamata; Iguania; Iguanidae; Polychrotinae; Anolis.
NCBI_TaxID=52189;
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Lepidosauria, Squamata, Iguania, Iguanidae, Hoplocercinae,
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                                                                                                  [1] — SEQUENCE FROM N.A. BEDLINE-9715309; MEDLINE-9715309 PubMed-9169559; Maccy J.R., Larson A., Ananjeva N.B., Papenfuss T.J.; Maccy J.R., Larson A., Ananjeva N.B., Papenfuss T.J.; "Evolutionary shifts in three major structural features of micochondrial genome among iguanian lizards."; M. Mol. Evol. 44:660-674 (1997) EMBL; U82679; AAC62266.1; — GO, GO:005739; C:mitochondrion; IEA.
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01-NOV-1998 (TrEMBLrel. 08, Created)
01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
Cytochrome c oxidase subunit I (Fragment).
Name=COI;
Oplurus cuvieri (Madagascan collared iguanid lizard)
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01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
01-NOV-1998 (TrEMBLrel. 25, Last annotation update)
Cytochrome c oxidase subunit I (Fragment).
Name=COI;
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Best Local Similarity 22.20,
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1 MFINRWFFS 9
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                                                                                                                                                                                                                                                                                                                                                                                                               Mitochondrion.
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MEDLINE=11531263; PubMed=11673859; DOI=10.1006/abbi.2001.2546;

MEDLINE=21531263; PubMed=11673859; DOI=10.1006/abbi.2001.2546;

MEDLINE=21531263; PubMed=11673859; DOI=10.1006/abbi.2001.2546;

"Calpastatin expression in porcine cardiac and skeletal muscle and partial gene structure.";

Arch. Biochem. Biophys. 395:1-13(2001).
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Cetartiodactyla; Suina; Suidae; Sus.
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Q8adi8
P833878
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C024369
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P558805
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EMBL; AJ583410; CAE47431.1; -. NON_TER 10 10
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079885;
079885;
01-NOV-1998 (TEMBLrel. 08, Created)
01-NOV-2093 (TEMBLrel. 08, Last sequence update)
01-JUN-2003 (TEMBLrel. 24, Last annotation update)
Cytochrome c oxidase subunit I (Fragment).
Name=COI;
Anolis paternus.
Mitochondrion.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Calpastatin type 2 (Fragment).
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NO40 LOTTA

NO40 SESRO

NO40 SOYBN

NO40 SOYBN

NO41 CABEL

UR2A_CATCO

UR2B_CATCO

UR3B_CATCO

UR3B_C
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Q16405
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Q86CU1
Q86FU4
Q90XU4
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MEDLINE-97153820; PubMed=9000751;
MEDLINE-97153820; PubMed=9000751;
MAGOFY J.R., Larson A., Ananjeva N.B., Papenfuss T.J.;
Mal. Larson A., Ananjeva N.B., Papenfuss T.J.;
Mal. Biol. Brol. Brol. 14:30-39 (1997).
Mal. Biol. Brol. Brol. 14:30-39 (1997).
EMBL; U71329; AAB48286.1; ---
GO; GO:0005739; C:mitochondrion; IEA.
Mitochondrion.
Mitochondrion.
                                                                                                                                                    SEQUENCE FROM N.A.
MEDLINE=97153826; PubMed=9000757;
Macey J.R., Larson A., Ananjeva N.B., Fang Z., Papenfuss T.J.;
Macey J.R., Larson A. and the role of light-strand replication in rearrangement of the vertebrate mitochondrial genome.";
Mol. Biol. Evol. 14:91-104(1997).
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Lepidosauria; Squamata; Iguania; Iguanidae; Polychrotinae; Anolis.
NCBI_TaxID=174262;
                                                    Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Lepidosauria, Squamata, Scleroglossa, Scincomorpha, Scincoidea,
Cordylidae, Platysaurus.
NCBI_TaxID=52175;
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Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases.
EMBL, AR337800; AAL72083.1; -.
EMBL, AR37800; AAL72085.1; -.
GO, GO:0005739; C:mitochondrion; IEA.
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01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Cytochrome oxidase subunit 1 (Fragment).
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10 AA; 1349 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity 22.2
nes 2; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                    Platysaurus capensis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 XFXXXWXXX 9
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1 MFISRWFFS 9
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1 MFFNRWFLS 9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A. Glor R.E., Vitt L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Anolis nitens.
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                                      Mitochondrion.
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SEQUENCE
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Q8W7U4
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ID QE
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                  Sukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi, epidosauria, Squamata, Iguania, Iguanidae, Oplurinae, Oplurus.
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BIMBL, 102686; AACG2299.1; --
PIR; T17069; T17069; C.mitochondrion; IEA.
                                                                                                          MEDLINE=97315309; PubMed=9169559;
Maccy J.R., Larson A., Ananjeva N.B., Papenfuss T.J.;
Maccy J.R., Larson A., Ananjeva N.B., Papenfuss T.J.;
Evolutionary shifts in three major structural features of the mitochondrial genome among iguanian lizards.";
J. Mol. Evol. 44.660-674(1997)
BMBL, 108268; AACG2293.1;
PIR; T17066; T17066; Cimitochondrion; IEA.
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                                                                                                                                                                                                                                                                                                                                             ; Score 24; DB 2; Length 10;
Pred. No. 4.6e+03;
7; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 24; DB 2; Length 10; 22.2%; Pred. No. 4.6e+03; ive 7; Mismatches 0; Indels
                                                                                                                                                                                                                                                                   Mitochondrion.

NON TER 10 10

SEQUENCE 10 AA; 1349 MW; 0A3480C9D3640440 CRC64;
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SEQUENCE 10 AA; 1349 MW; 0A3480C9D3640440 CRC64;
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01-WAY-1997 (TrEMBLrel. 03, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10 AA.
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08, Last seg
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22.2%;
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Best Local Similarity 22.2
Matches 2, Conservative
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Matches 2; Conservative
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Mitochondrion.
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1 MFINRWFFS 9
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1 MFINRWFFS
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                                                                                            SEQUENCE FROM N.A.
                                                        NCBI TaxID=44151;
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RESULT 5

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RESULT 6

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Lepidosauria; Squamata; Iguania; Iguanidae; Polychrotinae; Anolia.
NCBI TaxID=174263;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Lepidosauria; Squamata; Iguania; Iguanidae; Polychrotinae; Anolis.
NCBI_TaxID=44141;
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Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; AF337794; AAL72076.1;
EMBL; AF337794; AAL72071.1;
EMBL; AF337795; AAL72073.1;
EMBL; AF337796; AAL72075.1;
EMBL; AF337797; AAL72075.1;
EMBL; AF337799; AAL72079.1;
EMBL; AF337799; AAL72079.1;
EMBL; AF337799; AAL72079.1;
EMBL; AF337799; AAL72079.1;
CG, GO:0005739; C:mitochondrion; IEA.
Mitochondrion.
NON TER
NON TER
SEQÜENCE 10 AA; 1349 MW; 0A3480C9D3640440 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 24; DB 2; Length 10; 22.2%; Pred. No. 4.6e+03; tive 7; Mismatches 0; Indels
 Indels
                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
Glor R.E., Vitt L.J., Larson A.;
Glor R.E., Vitt L.J., Larson A.;
Submitted (JAN-201) to the EMBL/GenBank/DDBJ databases.
EMBL; AF337771; AAL72023.1; -.
EMBL; AF337772; AAL72027.1; -.
EMBL; AF337773; AAL72029.1; -.
EMBL; AF337774; AAL72029.1; -.
EMBL; AF337774; AAL72031.1; -.
GOO; GO:0005739; C:mitochondrion; IEA.
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1-MAR-2002 (TrEMBLrel. 20, Last sequence update)
25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
Cytochrome oxidase subunit 1 (Fragment) (Fragment).
                                                                                                                                                                                                                           Last sequence update)
Last annotation update)
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                                                                                                                                                                   10 AA.
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 Mismatches
                                                                                                                                                                                                                                                            Cytochrome oxidase subunit 1 (Fragment).
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                                                                                                                                                                                                        Created)
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 7:
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Best Local Similarity 22.43,
2; Conservative
 2; Conservative
                                                                                                                                                                   PRELIMINARY;
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                                  1 XFXXXWXXX 9
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1 MFLNRWFFS 9
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                                                                                                                                                                                                                                                                                 Name=CO1;
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Q8W969
Matches
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ID Q8
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                                                                                                                                                                                                                                                                                                                                Schulte J.A. II, Valladares J.P., Larson A.; "Phylogenetic relationships within Iguanidae inferred using molecular and morphological data and a phylogenetic taxonomy of iguanian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                 Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Lepidosauria; Squamata; Iguania; Iguanidae; Polychrotinae; Anolis.
NCBL_TaxID=174263;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Lepidosauria; Squamata; Iguania; Iguanidae; Polychrotinae; Anolis.
NCBI_TaxID=174262;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ó,
         01-WAR-2002 (TrEMBLrel. 20, Created)
01-WAR-2002 (TrEMBLrel. 20, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Cytochrome oxidase subunit 1 (Cytochrome c oxidase subunit I)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; Score 24; DB 2; Length 10; Pred. No. 4.6e+03; 7; Mismatches 0; Indels
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                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
Glor R.E., Vitt L.J., Larson A.;
Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Schulte J.A., Valladares J.P., Larson A.;
Submitted (JUL-2002) to the EMBL/GenBank/DDBJ databases.
EMBL; AF337775; AAL72033.1; -
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Glor N.E., Vitt Lurson A.;
Glor N.E., Vitt L.J., Larson A.;
Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; AF337803; AAL72087.1; -.
EMBL; AF337803; AAL72089.1; -.
EMBL; AF337803; AAL72091.1; -.
GO, GO:005739; C:mitochondrion; IEA.
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SEQUENCE 10 AA; 1349 MW; 4B3480C9D3640447 CRC64;
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NON TER 10 10
SEQÜENCE 10 AA; 1349 MW; 4B3480C9D3640447 CRC64;
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1-MAR-2002 (TrEMBLrel. 20, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Cytochrome oxidase subunit 1 (Fragment).
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                                                                                                                          Anolis punctatus (Amazon green anole). Mitochondrion.
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EMBL, AF337777; AAL72037.1; -.
EMBL, AF528726; AAQ09140.1; -.
GO, GO:0005739; C:mitochondrion; IEA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%;
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Best Local Similarity 22.2°
Matches 2, Conservative
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                                                                                       (Fragment).
Name=CO1; Synonyms=COI;
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1 MFLNRWFFS 9
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Best Local Similarity
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RESULT 9 Q8W8Q3

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Gaps

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Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Lepidosauria, Squamata, Iguania, Iguanidae, Polychrotinae, Anolis.
NCBI_TaxID=141901;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Lepidosauria; Squamata; Iguania; Iguanidae; Polychrotinae; Anolis.
NCBI TaxID=38897;
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                                     100.0%; Score 24; DB 2; Length 10; 22.2%; Pred. No. 4.6e+03; ative 7; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 24;; DB 2; Length 10; 22.2%; Pred. No. 4.6e+03; ive 7; Mismatches 0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A. Glor R.; Glor R.E., Vitt L.J., Larson A.; Glor R.E., Vitt L.J., Larson A.; Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases. EMBL, AF337785; AAL72053.1; -GO; GO:0005739; C:mitochondrion; IEA.
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NON TER 10 10
SEQUENCE 10 AA; 1349 MW; 0A3480C9D3640440 CRC64;
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SEQÜENCE 10 AA; 1315 MW; 0A3480C733640440 CRC64;
     10 AA; 1349 MW; 0A3480C9D3640440 CRC64;
                                                                                                                                                                                                                                                                        01-MAR-2002 (TrEMBLrel. 20, Created)
1-MAR-2002 (TrEMBLrel. 20, Last sequence update)
01-UNN-2003 (TrEMBLrel. 24, Last annotation update)
Cytochrome oxidase subunit 1 (Fragment).
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1-MAR-2002 (TrEMBLrel. 20, Last sequence update)
01-UUN-2003 (TrEMBLrel. 24, Last annotation update)
Cytochrome oxidase subunit 1 (Fragment).
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Best Local Similarity 22.2
المالية 23.2
                                     Query Match 100.
Best Local Similarity 22.2
Matches 2; Conservative
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1 MFINRWFFS 9
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1 MFINRWFFS 9
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Mitochondrion.
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     SEQUENCE
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Lepidosauria; Squamata; Iguania; Iguanidae; Polychrotinae; Anolis.
NCBI_TaxID=174262;
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Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Lepidosauria, Squamata, Iguania, Iguanidae, Polychrotinae, Anolis.
NCBI_TaxID=43584;
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                  ; Score 24; DB 2; Length 10;
Pred. No. 4.6e+03;
7; Mismatches 0; Indels
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Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases.
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Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases
EMBL; AF337786; AAL72055.1; -
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10 AA; 1349 MW; 0A3480C9D3640440 CRC64;
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1-MAR-2002 (TrEMBLrel. 20, Last sequence update)
25-CCT-2004 (TrEMBLrel. 28, Last annotation update)
Cytochrome oxidase subunit 1 (Fragment) (Fragment).
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01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
Cytochrome oxidase subunit 1 (Fragment) (Fragment).
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EMBL, AF337806, AAL72095.1; -.
EMBL, AF337807, AAL72097.1; -.
GO; GO:0005739; C:mltochondrion; IEA.
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EMBL; AF337792; AAL72067.1; -...
GO: 0005739; C:mitochondrion; IEA.
Mitochondrion.
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                  100.0%;
22.2%; P
Query Match
Best Local Similarity 22.2
Best Local Similarity 22.2
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1 MFINRWFFS 9
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1 MFINRWFFS 9
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SEQUENCE FROM N.A.
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NON TER 10
SEQUENCE 10 A
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Q8W971
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Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Lepidosauria, Squamata, Iguania, Iguanidae, Polychrotinae, Anolis.
NCBI_TaxID=174265,
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Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Lepidosauria, Squamata, Iguania, Iguanidae, Polychrotinae, Anolis.
NCBI_TaxID=174261;
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SEQUENCE FROM N.A.
GLOT R.E., Vitt L.J., Larson A.;
Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases.
EMBL, AF337779; AAL72041.1; -..
GO: GO: 0005739; C:mitochondrion; IEA.
                                                                                                                                                                        SECUENCE FROM N.A.
Glor R.E., Vitt L.J., Larson A.;
Submitted (JAN-201) to the EMBL/GenBank/DDBJ databases.
EMBL, AR337780; AAL72043.1;
GO: GO:0005739; C:mitochondrion; IEA.
                                                                                                                                                                                                                                                                               0A3480C733640440 CRC64;
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               01-WAR-2002 (TrEMBLrel. 20, Created)
01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
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01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
01-UNN-2003 (TrEMBLrel. 24, Last annotation update)
Cytochrome oxidase subunit 1 (Fragment).
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01-MAR-2002 (TrEMBLrel. 20, Last sequence
01-JUN-2003 (TrEMBLrel. 24, Last annotati
Cytochrome oxidase subunit 1 (Fragment).
Name=CO1;
Anolis transversalis (Banded tree anole).
                                                            Cytochrome oxidase subunit 1 (Fragment).
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SEQUENCE 10 AA; 1315 MW;
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Best Local Similarity 22.2.
2, Conservative
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Best Local Similarity 22.2
Matches 2; Conservative
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1 MFINRWLFS 9
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1 MFINRWFFS 9
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                                                                                                        Mitochondrion.
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                                                                                          Anolis woodi.
                                                                           Name=CO1;
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Lepidosauria; Squamata; Iguania; Iguanidae; Polychrotinae; Anolis;
NCBI_TaxID=141898;
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Lepidosauria, Squamata, Iguania, Iguanidae, Polychrotinae, Anolis.
NCBI_TaxID=141894;
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GLOS R.E., Vitt L.J., Larson A.;
Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases.
EMBL, AF337782, AAL72047.1;
GO; GO:0005739; C:mitochondrion; IBA.
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NON TER 10 10
SEQÜENCE 10 AA; 1349 MW; 0A3480C9D3640440 CRC64;
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01-MAR-2002 (TrEMBLrel. 20, Last sequen
01-UTN-2003 (TrEMBLrel. 24, Last annota
Cytochrome oxidase subunit 1 (Fragment)
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01-JUN-2003 (TrEMBLrel. 24, Last ann
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Best Local Similarity 22.2
Matches 2; Conservative
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1 MFINRWFFS 9
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1 MFINRWLFS
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Best Local Similarity
Matches 2; Conserv
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Q8WDH6
ID Q8WDH
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1 MFINRWFFS 9
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Best Local Similarity
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   NCBI_TaxID=59726;
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Lepidosauria, Squamata, Scleroglossa, Gekkota, Gekkonidae, Strophurus.
NCBI_TaxID=255186;
                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A. Melville J., Schulte J.A. II, Larson A.; Melville J., Schulte J.A. II, Larson A.; "A Molecular Study of Phylogenetic Relationships and Evolution of Antipredator Strategies in Australian Diplodactylus Geckos, Subgenus
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            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Lepidosauria; Squamata; Iguania; Iguanidae; Polychrotinae; Anolis.
NCBI_TaxID=174264;
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Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Lepidosauria; Squamata; Iguania; Iguanidae; Phrynosomatinae;
Sceloporus.
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                                                         SEQUENCE FROM N.A.
Glor R.E., Vitt L.J., Larson A.;
Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases.
EMBL, AF337762 AAL72021.1;
GO: GO:0005739; C:mitchchondrion; IEA.
                                                                                                                                              10 AA; 1349 MW; 4B3480C9D3640447 CRC64;
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EMBL; AX369011; AAR18865.1; -...
GO; GO:0005739; C:mitochondrion; IEA.
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Mitochondrion.
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Lepidosauria; Squamata; Iguania; Iguanidae; Phrynosomatinae;
Sceloporus.
NCBI_TaxID=57316;
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Lepidosauria, Squamata, Iguania, Iguanidae, Phrynosomatinae,
SEQUENCE FROM N.A.

MEDLINE-22801591; PubMed=12920297; DOI=10.1126/science.1084786;
Harmon L.J., Schulte J.A., Larson A., Losos J.B.;
"Tempo and mode of evolutionary radiation in iguanian lizards.";
Science 301.961-954(2003).
EMBL; AXZ97513; AAP84510.1; -.
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MEDLINE-22001591; PubMed=12920297; DOI=10.1126/science.1084786;
Harmon L.J., Schulte J.A., Larson A., Losos J.B.;
"Tempo and mode of evolutionary radiation in iguanian lizards.";
Science 301.961-964(2003).
Science 301.961-9648(1.1. -
GO, GO.005739; Canitochondrion; IEA.
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SEQÜENCE 10 AA; 1349 MW; 0A3480C9D3640440 CRC64;
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05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Cytochrome oxidase subunit I (Fragment).
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05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Cytochrome oxidase subunit I (Fragment).
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05-JUL-2004 (TrEMBLrel. 27,
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Best Local Similarity 22.23,
2; Conservative
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Matches 2, Conservative
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1 MFINRWFFS 9
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1 MFINRWFFS 9
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SEQUENCE FROM N.A.
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Lepidosauria, Squamata, Iguania, Iguanidae, Phrynosomatinae,
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Lepidosauria, Squamata, Iguania, Iguanidae, Phrynosomatinae,
      BEQUENCE FROM N.A.

MEDLINE=22801591; PubMed=12920297; DOI=10.1126/science.1084786;

MEDLINE=22801591; PubMed=12920297; DOI=10.1126/science.1084786;

"Tamon Lot., Schulte J.A., Larson A., Losos J.B.;

"Tempo and mode of evolutionary radiation in iguanian lizards.";

Science 301:961-964(2003).

EMBL; AY297504; AAP84483.1; -.

GO; GO:005729; C:mitochondrion; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.

WEDLINES-2201591; PubMed=12920297; DOI=10.1126/science.1084786;

Harmon L.J., Schulte J.A., Larson A., Losos J.B.;

"Tempo and mode of evolutionary radiation in iguanian lizards.";

Science 301:961-964(2001).

EMBL; AY207501; AR447441;

QO; GO:0005739; C:mitochondrion; IEA.
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SEQUENCE 10 AA; 1315 MW; 0A3480C733640440 CRC64;
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10 AA; 1349 MW; 0A3480C9D3640440 CRC64;
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05-JUL_2004 (TrEMBLrel. 27, Last sequence update)
05-JUL_2004 (TrEMBLrel. 27, Last annotation update)
Cytochrome oxidase subunit I (Fragment).
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Cytochrome oxidase subunit I (Fragment)
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Mitochondrion.
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NCBI_TaxID=110853;
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Lepidosauria, Squamata, Iguania, Iguanidae, Phrynosomatinae,
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Lepidosauria, Squamata, Iguania, Iguanidae, Phrynosomatinae,
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Science 301:961-964(2001) --
GO; GO:0005739; Camitochondrion; IRA.
SEQUENCE FROM N.A.

MEDILIPE=22801591; PubMed=12920297; DOI=10.1126/science.1084786;

MEDILIPE=22801591; PubMed=12920297; DOI=10.1126/science.1084786;

Harmon L.G., Schulte J.A., Larson A., Losos J.B.;

"Tempo and mode of evolutionary radiation in iguanian lizards.";

Science 301:961-964(2001). --

EMBL; AY207495; AAR94459.1; --

GO; GO:0005739; C:mitochondrion; IEA.
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Cytochrome oxidase subunit I (Fragment).
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Lepidosauria; Squamata; Iguania; Iguanidae; Phrynosomatinae;
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Lepidosauria, Squamata, Iguania, Iguanidae, Phrynosomatinae,
 Harmon L.J., Schulte J.A., Larson A., Lôsos J.B.;
"Tempo and mode of evolutionary radiation in iguanian lizards.";
Science 301:961-964(2003)
EMBL; AX297487; AAP84432.1; -.
GO; GO:0005739; C:mitochondrion; IEA.
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MEDLINE-22801591; PubMed=12920297; DOI=10.1126/science.1084786;
Harmon L.J., Schulte J.A., Larson A., Lasos J.B.;
"Tempo and mode of evolutionary radiation in iguanian lizards.";
Science 301:961-964(2003).
EMBL; AXZ97486; AAP84439.1; -.
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MEDLINE=22801591; PubMed=12920297; DOI=10.1126/science.1084786;
Harmon L.J., Schulte J.A., Larson A., Losos J.B.;
                                                                                                                                     100.0%; Score 24; DB 2; Length 10; 22.2%; Pred. No. 4.6e+03; tive 7; Mismatches 0; Indels
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Pred. No. 4.6e+03;
7; Mismatches 0; Indels
                                                                                                          0A3480C9D3640440 CRC64;
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Last annotation update)
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Cytochrome oxidase subunit I
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Local Similarity 22.2%; hes 2; Conservative 7
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10 AA; 1349 MW;
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1 MFINRWFFS 9
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NON TER 10
SEQUENCE 10 A
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SEQUENCE
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Lepidosauria, Squamata, Iguania, Iguanidae, Phrynosomatinae,
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Lepidosauria, Squamata, Iguania, Iguanidae, Phrynosomatinae,
             Harmon L.J., Schulte J.A., Larson A., Losos J.B.;
"Tempo and mode of evolutionary radiation in iguanian lizards.";
Science 301:961-964(2001)
EMBL; AY297494; AAR94453.1; -.
GO: GO:0005739; C:mitchondrion; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=22801591; PubMed=12920297; DOI=10.1126/science.1084786; Harmon L.J., Schulte J.A., Larson A., Losos J.B.; Fempo and mode of evolutionary radiation in iguanian lizards."; Science 301:961-964(203).
EMBL; AV297488; AAP84435.1; -...
GO; GO:0005739; C:mitochondrion; IEA.
MEDLINE=22801591; PubMed=12920297; DOI=10.1126/science.1084786;
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MEDLINE=22801591; PubMed=12920297; DOI=10.1126/science.1084786;
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Pred. No. 4.6e+03;
7; Mismatches 0; Indels
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SEQUENCE 10 AA; 1303 MW; 933480C733640451 CRC64;
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05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
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05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
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1 MFMNRWFFS 9
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1 MFINRWFSS
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Q6X061
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Q6X071
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MEDLINE=22990428; PubMed=14628926;
Glor R.E., Kolbe J.J., Powell R., Larson A., Losos J.B.;
"Phylogenetic analysis of ecological and morphological diversification in Hispaniolan trunk-ground anoles (Anolis cybotes group).";
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Lepidosauria, Squamata, Iguania, Iguanidae, Polychrotinae, Anolis.
NCBI_TaxID=38891,
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Lepidosauria, Squamata, Iguania, Iguanidae, Phrynosomatinae,
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MEDINRE-22801591; PubMed=12920297; DOI=10.1126/science.1084786;

Harmon L.J., Schulte J.A., Larson A., Losos J.B.;

"Tempo and mode of evolutionary radiation in iguanian lizards.";

Science 301:961-964
  evolutionary radiation in iguanian lizards.";
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SEQUENCE 10 AA; 1349 MW; 0A3480C9D3640440 CRC64;
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Cytochrome oxidase subunit I (Fragment)
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"Tempo and mode of evolutionary radio
Science 301:961-964(2003)
EMBL; AX297485; AAP84426.1; --
GO: GO:0005739; C:mitochondrion; IEA
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05-JUL-2004 (TrEMBLrel. 27, Created)
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05-JUL-2004 (TrEMBLrel. 27, Last ann
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Best Local Similarity 22.2%;
Matches 2; Conservative
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1 MFINRWFFS 9
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Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Lepidosauria; Squamata; Iguania; Iguanidae; Polychrotinae; Anolis.
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Lepidosauria; Squamata; Iguania; Iguanidae; Polychrotinae; Anolis.
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MEDLINE=22990428; PubMed=14628926;
Glor R.E., Kolbe J.J., Powell R., Larson A., Losos J.B.;
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10 AA; 1288 MW; 0A349CB9D3640440 CRC64;
                                                                                                                                                                                                         BE3480C9D3640446 CRC64;
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05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Cytochrome oxidase subunit I (Fragment).
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05-JUL_2004 (TrEMBLrel. 27, Last sequence update)
25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
Cytochrome oxidase subunit I (Fragment) (Fragment).
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EMBL; AY263139; AAP94564.1; -.
EMBL; AY263140; AAP94567.1; -.
EMBL; AY263144; AAP94567.1; -.
EMBL; AY263138; AAP94561.1; -.
GO; GO:0005739; C:mitochondrion; IEA.
Mitochondrion.

NON TER 10
SEQUENCE 10 AA; 1367 MW; BE3480C9D3
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Anolis longitibialis. Mitochondrion.
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1 MFINRWFFS 9
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1 MFINRWFFS
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"Phylogenetic analysis of ecological and morphological diversification in Hispaniolan trunk-ground anoles (Anolis cybotes group).";
Evolution 57:2383-2397(2003).
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Lepidosauria; Squamata; Iguania; Iguanidae; Polychrotinae; Anolis.
NCBI_TaxID=237981;
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05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 28, Last annotation update)
Cytochrome oxidase subunit I (Fragment) (Fragment).
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                                                                                                           EMBL; AY263036; AAP94377.1; --
EMBL; AY263037; AAP94380.1; --
GO; GO:0005739; C:mitochondrion; IEA.
Mitochondrion.
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AAP94352.1;
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Matches 2; Conservative
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1 MFINRWFFS 9
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SEQUENCE
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06X0C3
06X0C3
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Glor R.E., Kolbe J.J., Powell R., Larson A., Losos J.B.;
"Phylogenetic analysis of ecological and morphological diversification in Hispaniolan trunk ground anoles (Anolis cybotes group).";
EVOLUTION 57:2383-2397(2003).
EMBL; AYZ63011; AAP94316.1; -.
GO, GO:0005739; C:mitochondrion; IEA.
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Glor ansignment analysis of ecological and morphological diversification in Hispaniolan trunk-ground anoles (Anolis cybotes group).";
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Cytochrome oxidase subunit I (Fragment) (Fragment).
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"Phylogenetic analysis of ecological and morphological diversification in Hispaniclan trunk ground anoles (Anolis cybotes group).";

EVOLUTION 57:2383-2397(2003).

EMBL; AY263006; AAP94298.1; -.

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GO, 00:0005739; C:mitochondrion; IEA.
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Mitochondrion.
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Lepidosauria; Squamata; Iguania; Iguanidae; Polychrotinae, Anolis.
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Cytochrome oxidase subunit I (Fragment).
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J. Mol. Bvol. 44, 660-674, 1997
J. Mol. Bvol. 44, 660-
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A;Residues: 1-10 <MAC>
A;Cross-references: UNIPROT:079903; EMBL:U82685; NID:g3603136; PID:g3603139; PIDN:AAC622
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C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 09-Jul-2004
C;Accession: T17069
R;Macey, J.R.; Larson, A.; Ananjeva, N.B.; Papenfuss, T.J.
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100.0%; Score 24; DB 2; Length 10;
Best Local Similarity 22.2%; Pred. No. 8.8e+02;
Matches 2; Conservative 7; Mismatches 0; Indels
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    22.2%; Pred. No. 8.8e+02; ive 7; Mismatches 0;
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A;Molecule type: DNA
A;Residues: 1-10 <SCH>
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CiSpecies: Bacteroides fragilis
CiSpecies: Bacteroides fragilis
CiSpecies: OB-Nov-1991 #sequence_revision 08-Nov-1991 #text_change 30-Sep-1993
CiAccession: C39191
Rispeer, B.S.; Bedzyk, L.; Salyers, A.A.
J. Bacteriol. 173, 176-183, 1991
A; Title: Evidence that a novel tetracycline resistance gene found on two Bacteroides tra
A; Reference number: A39191; MUID:91100280; PMID:1846135
A; Accession: C39191
A; Reference number: A39191; MUID:910280; MID:1846135
A; Accession: C39191
A; Residues: preliminary; not compared with conceptual translation
A; Residues: 1-10 <Spec.
A; Cross-references: GB:M37699
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Pred. No. 8.8e+02;
7; Mismatches 0; Indels
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C;Keywords: mitochondrion; oxidoreductase
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JQ2310
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A58946
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S47201
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S05923
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S05921
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Best Local Similarity 22.2%;
Matches 2; Conservative 7
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2 YFSRPWTSI 10
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Length 10;

DB 2;

100.0%; Score 24;

Query Match

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nitrogen fixation protein nifB - Anabaena variabilis (fragment)
C;Species: Anabaena variabilis
C;Species: Anabaena variabilis
C;Species: Anabaena variabilis
C;Species: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 09-Jul-2004
C;Accession: 332675
R;Monnerjahn, U.; Boehme, H.
R;Molecule type: DNA
R;Residues: 1-19 cMON>
R;Residues: 1-19 cM
                                                                                                                                                                                                                                                                                                                                                          protein-tyrosine kinase (EC 2.7.1.112) 1, neuron-specific - human (fragment) C;Species: Homo sapiens (man)
C;Species: Homo sapiens (man)
C;Date: 06-Jul-1990 #sequence_revision 06-Jul-1990 #text_change 09-Jul-2004
C;Date: 06-Jul-1990 #sequence_revision 06-Jul-1990 #text_change 09-Jul-2004
R;Pyper, J.M.; Bolen, J.B.
Mol. Cell. Biol. 10, 2035-2040, 1990
A;Title: Identification of a novel neuronal C-SRC exon expressed in human brain.
A;Reference number: A34704; MUID:90220588; PMID:1691439
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C;Species: Thunnus obesus (bigeye tuna)
C;Date: 17-Sep-1997 #sequence_revision 17-Sep-1997 #text_change 09-Jul-2004
C;Accession: 877981
R;Arnold, S.; Lee, J.; Kim, M.; Song, E.; Linder, D.; Lottspeich, F.; Kadenbach, A;Reference number: 877980
A;Reference number: 877980
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A;Molecule type: mRNA
A;Residues: 1-17
A;Cross-references: UNIPROT:Q14925
C;Keywords: ATP; phosphotransferase; tyrosine-specific protein kinase
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Best Local Similarity 22.2%; Pred. No. 1.4e+03;
Matches 2; Conservative 7; Mismatches 0; Indels
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C;Superfamily: Rhizobium nifB protein
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A;Residues: 1.20 cARN>
A;Crose-references: UNIPROT:P80972
A;Experimental source: heart; liver
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3 PFFDDWRSG 11
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J. Mol. Evol. 44, 660-674, 1997

A; Title: Evolutionary shifts in three major structural features of the mitochondrial gen A; Reference number: Z18674; MUID: 97315309; PMID: 9169559

A; Reference number: Z18674; MUID: 97315309; PMID: 9169559

A; Accession: T17069

A; Status: preliminary; translated from GB/EMBL/DDBJ

A; Molecule type: DNA

A; Residues: 1-10 <AMC.>
A; Cross-references: UNIPROT: 079906; EMBL: U82686; NID: 93603144; PID: 93603147; PIDN: AAC622

A; Genetics:
A; Genetics:
A; Genetics:
C; Genetics:
C; Keywords: mitochondrion; oxidoreductase
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22.2%; Pred. No. 8.8e+02;
tive 7; Mismatches 0; Indels
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C; Keywords: mitochondrion; oxidoreductase
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Best Local Similarity 22.2%;
Matches 2; Conservative
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Matches 2; Conservative
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MFINRWLFS 9
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C;Accession: PH1380
R;Kawaguchi, T.; Nagae, H.; Murao, S.; Arai, M.
Bisci. Batcechnol. Biochem. S6, 1792-1196, 1992
A;Title: Purification and some properties of a Haim-sensitive alpha-amylase from newly 1 A;Reference number: PH1380; MUID:93113087; PMID:1369074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Residues: 1-9 <HAU>
A;Cross-references: UNIPROT:Q28121; EMBL:U24113; NID:g775221; PIDN:AAA91014.1; PID:g7752
C;Genetics:
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Cispecies: Tabanus atratus (black horse fly)
Cipate: 23-Mar-1990 #sequence_revision 23-Mar-1990 #text_change 09-Jul-2004
Cipate: 23-Mar-1990 #sequence_revision 23-Mar-1990 #text_change 09-Jul-2004
Cipacession: B33995
RiJaffe, H.; Raina, A.K.; Riley, C.T.; Fraser, B.A.; Nachman, R.J.; Vogel, V.W.; Zhang, Proc. Natl. Acad. Sci. US.A. 86, 8161-1814, 1989
A;Title: Primary structure of two neuropeptide hormones with adipokinetic and hypotrehal A;Reference number: A33995; MUID:90046758; PMID:2813385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A,Description: catalyzes the hydrolysis of internal 1,4-alpha-D-glucosidic bonds A,Pathway: glycogen/starch degradation C;Keywords: glycosidase; hydrolase; polysaccharide degradation
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C;Species: Bos primigenius taurus (cattle)
C;Date: 16-Aug-1996 #sequence_revision 16-Aug-1996 #text_change 09-Jul-2004
C;Date: 16-Aug-1996 #sequence_revision 16-Aug-1996 #text_change 09-Jul-2004
C;Accession: 146023
R;Hauser, S.D.; McGrath, M.F.; Collier, R.J.; Krivi, G.G.
Mol. Cell. Endocrinol. 72, 187-200, 1990
A;Title: Cloning and in vivo expression of bovine growth hormone receptor mRNA.
A;Reference number: 146023; MUID:91146804; PMID:2289631
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                                                                                                                                                                                                                                               C;Species: Bacillus sp.
C;Date: 24-Feb-1994 #sequence_revision 24-Feb-1994 #text_change 09-Jul-2004
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Pred. No. 2.8e+05;
6; Mismatches 0; Indels
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A;Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Experimental source: strain N0.195
C; Comment: This enzyme has an optimum pH of 7.0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Accession: PH1380
A;Molecule type: protein
A;Residues: 1-20 <KAW-
A;Cross-references: UNIPROT:Q9R5E8
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nes 2, Conservative
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A;Molecule type: protein
A;Residues: 1-10 <JAF>
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FQFPWFVI 8
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Matches 2; Conserv
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B33995
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Matches
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C;Genetics:
A;Genome: nuclear
A;Genome: nuclear
B;Function; respiratory chain
A;Function oxidative phosphorylation; respiratory chain
C;Superfamily: mammalian cytochrome-c oxidase chain Va
C;Superfamily: mammalian cytochrome-c oxidase chain Va
C;Keywords: electron transfer; membrane-associated complex; mitochondrial inner membrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Partial population (EC 5.2.1.8) b, cytosolic - fungus (Fusarium sporotrichioides) N;Contains: cyclophilin (S;Species: Fusarium sporotrichioides C;Species: Fusarium sporotrichioides C;Species: Fusarium sporotrichioides C;Accession: PN0171 #sequence_revision 05-Aug-1994 #text_change 02-Sep-2000 C;Accession: PN0171 Prow, L.P.; Sugiura, Y.; Tsugita, A.; Ueno, Y.; Tabuchi, K. submitted to JIPID, May 1994 A;Description: Two dimensional polyacrylamide gel electrophoresis of Fusarium sporotrich A;Reference number: PN0160 A;Reference number: PN010 A;Reference number: PN010 A;Residues: 1-20 cFUK. A;Residues: 1-20 cFUK. A;Residues: 1-20 cFUK. C;Superimental source: strain M-1-1 C;Superimental strain M-1-1 C;Superimental source: strain M-1-1 C;Superimental source: strain M-1-1 C;Superimental strain M-1-1 C;Superimental
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C; Species: Spinacia oleracea (spinach)
C; Species: Spinacia oleracea (spinach)
C; Date: 30.Sep-1993 #sequence_revision 30-Sep-1993 #text_change 09-Jul-2004
C; Accession: PC1240; PC1241
R; Menegazzi, P.; Guzzo, F.; Baldan, B.; Mariani, P.; Treves, S.
Biochem. Blophys. Res. Commun. 190, 1130-1135, 1993
A; Title: Purification of Calreticulin-like protes; S from spinach leaves.
A; Reference number: PC1240; MUID:93176159; PMID:8439313
A; Residues: 1-20 cMEN-
A; Rocession: PC1240
A; Residues: 1-20 cMEN-
A; Rocession: PC1241
A; Molecule type: protein
A; Residues: 53K form
A; Accession: PC1241
A; Molecule type: protein
A; Residues: 1-20 cMEN-
A; Molecule type: protein
A; Residues: 1-20 cMEN-
A; Molecule type: protein
A; Rosefrence 1-20 cMEN-
A; Molecule type: protein
C; Superfamily: calreticulin
C; Keywords: calcium binding; metal binding
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100.0%; Score 24; DB 2; Length 20;
Best Local Similarity 33.3%; Pred. No. 1.6e+03;
Matches 3; Conservative 6; Mismatches 0; Indels
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S FFDITWEGX 13
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Best Local Similarity
Matches 2; Conserv
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hyperirehalosemic neuropeptide Bld-HrTH - Madeira cockroach
C;Species: Leucophaea maderae (Madeira cockroach)
C;Species: Jo-Jun-1992 #sequence_revision 14-Sep-1994 #text_change 09-Jul-2004
C;Accession: S08998
R;Gaede, G.; Rinehart, K.L.
Biol. Chem. Hoppe-Seyler 371, 345-354, 1990
A;Title: Primary structures of hypertrehalosaemic neuropeptides isolated from the corponentalis and of the stick insect Extacosoma tiaratum assigned by tandem fast atom bombar.
A;Reference number: S08995; MUID:90253659; PMID:2340112
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R;Gade, G.; Rinehart Jr., K.L.
Biochem. Biophys. Res. Commun. 141, 774-781,:1986
A;Title: Amino acid sequence of a hypertrehalosaemic neuropeptide from the corpus cardi.
A;Reference number: A26381; MUID:87100208; PMID:3801028
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A;Note: the amino-terminal residue forms pyrfolidone carboxylic acid; therefore, we hav.
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N,Alternate names: neuropeptide Cam-HrTH-I
N,Contains: hypertrehalosemic factor II
C,Species: Carausius morosus
C,Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;Species: Nauphoeta cinerea (gray cockroach)
;Date: 31-Mar-1988 #sequence_revision 24-Oct-1997 #text_change 09-Jul-2004
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K.Kaywords: amidated carboxyl end; hormone; neuropeptide; pyroglutamic aci
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;10/Modified site: amidated carboxyl end (Thr) #status experimental
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                                                                     Indels
Pred. No. 1.3e+03;
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                               25.0%;
                                                                     2; Conservative
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NFSPGWGT 10
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A; Molecule type: protein
A; Residues: 1-10 <GAE>
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                               Best Local Similarity
Matches 2; Conserv
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3 NFSPGWGT
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Cispecies: Gromphadorina portentosa
Cipate: 30-Jun-1992 #sequence_revision 14-Sep-1994 #text_change 09-Jul-2004
Cipacession: 808997
Ricacesion: 808997
Ricacesion: Rinchart, K.L.
Ricacesion: Rinchart, K.L.
Ricacesion: Hoppe-Seyler 371, 345-354, 1990
Ailtie: Primary Structures of hypertrahalosaemic neuropeptides isolated from the corpor entalis and of the stick insect Extatoseoma tiaratum assigned by tandem fast atom bombard Aircession: 808997
Aircession: 808997
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NyAlternate names: Bld-HrTH
C;Species: Blattella germanica (German cockroach)
C;Dete: 03-Feb-1993 #sequence_revision 03-Feb-1993 #text_change 09-Jul-2004
C;Accession: A60421; S09137
C;Accession: A60421; S09137
R;Veenstra, J.A.; Camps, F.
Neuropeptides 15, 107-109, 1990
A;Title: Structure of the hypertrehalosemic neuropeptide of the German cockroach, Blatte A;Reference number: A60421; MUID:91179584; PMID:2080017
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R,Gaede, G.; Rinehart, K.L.
Balol. Chem. Hopper-Seylor 371, 345-354, 1990
A;Title: Primary structures of hypertrehalosaemic neuropeptides isolated from the corpor entalis and of the stick insect Extatosoma tiaratum assigned by tandem fast atom bombard A;Reference number: S08995; MUID:90253659; PMID:2340112
                                                    C;Superfamily: adipokinetic hormone
C;Keywords: amidated carboxyl end; corpora cardiaca; hormone; neuropeptide; pyroglutamid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status predicted
F;10/Modified site: amidated carboxyl end (Tyr) #status predicted
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C, Superfamily: adipokinetic hormone
C, Superfamily: adipokinetic hormone
C, Reywords: amidated carboxyl end; hormone; neuropeptide; pyroglutamic acid
C; Reywords: apyrolidone carboxylic acid (Gln) #status experimental
F; 10/Modified site: pyrrolidone carboxyl end (Thr) #status experimental
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A;Molecule type: protein
A;Residues: 1-10 cGAE>
C;Superfamily: adipokinetic hormone
C;Superfamily: amidated carboxyl end; hormone; neuropeptide; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;10/Modified site: amidated carboxyl end (Thr) #status experimental
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25.0%; Pred. No. 1.3e+03;
ive 6; Mismatches 0; Indels
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                           A;Cross-references: UNIPROT:P14596
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NFSPGWGT 10
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TFTPGWGY 10
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A;Molecule type: protein
A;Residues: 1-10 <VEE>
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Matches 2; Conserv
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A,Title: Isolation and primary structure of a neuropeptide hormone from Heliothis zea wi
A;Reference number: A31571; MUID:88326324; PMID:3415690
A;Accession: A31571
A;MoJecule type: protein
A;Residues: 1-10 <JAF>
                                                                                                                                                         A,Cross-references: UNIPROT:P16353
C;Superfamily: adipokinetic hormone
C;Keywords: amidated carboxyl end; corpora cardiaca; hormone; neuropeptide; pyroglutamic
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;10/Modified site: amidated carboxyl end (Asn) #status experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            neuropeptide Pec-HrTH - Platypleura capensis
C;Species: Platypleura capensis
C;Species: Platypleura capensis
C;Jate: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 09-Jul-2004
C;Accession: S53789
R;Gaede, G.; Janssens, M.P.E.
Biol. Chem. Hoppe-Seyler 375, 803-809, 1894
A;Title: Cicadas contain novel members of the AKH/RPCH family peptides with hypertrehalc
A;Reference number: S53789; MUID:95225985; PMID:7710694
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C.Speciess: Hellothis zea (bollworm, corn earworm, tomato fruitworm)
C.Speciess: Hellothis zea (bollworm, corn earworm, tomato fruitworm)
C.Speciession: A24244 H.; Railay, A.K.; Riley, C.T.; Fraser, B.A.; Holman, G.M.; Wagner, R.M.; Ridgwa)
Biochem. Biophys. Res. Commun. 135, 622-628, 1986
A;Title: Isolation and primary structure of a peptide from the corpora cardiaca of Helic
A;Reference number: A24244; MUID:86186794; PMID:3964263
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C; Superfamily: adipokinetic hormone
C; Keywords: amidated carboxyl end; corpora cardiaca; hormone; neuropeptide; pyroglutamic
F; 1/ Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F; 9/ Modified site: amidated carboxyl end (Gly) #status experimental
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Pred. No. 2.8e+05;
5; Mismatches 0; Indels
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A,Residues: 1-10 «GAE»
A,Cross-references: UNIPROT:Q7M465
C,Keywords: blocked amino end; blocked carboxyl end
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28.6%;
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3 NFSPSWGN 10
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Best Local Similarity
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3 TFTSSWG
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                   Ridade G; Kellner, R.; Rinehart, K.L.; Proeffe, M.L.
Biochem. Biophys. Res. Commun. 189, 1303-1309, 1992
A; Title: A tryptophan-substituted member of the AKH/RPCH family isolated from a stick in A; Reference number: JC1416; MUID:93129188; PMID:1482345
A; Accession: JC1416
A; Molecule type: protein
A; Residues: 1-10 cGAE3.
A; Cross-references: UNIPROT:P11385
R; Gaede, G; Rinehart Jr., K.L.
Biol. Chem. Hoppe-Seyler 368, 67-75, 1987
A; Title: Primary structure of the hypertrehalosaemic factor II from the corpus cardiacum A; Residues: 20157; MUID:87157103; PMID:3828078
A; Residues: 22, 2-10 cGAE2.
C; Comment: Hypertrehalosemic factor II lacks the tryptophan modification.
A; Residues: 22, 2-10 cGAE2.
C; Comment: This peptide raises hemolymph levels of trehalose in the cockroach Periplanet C; Superfamily: adipokinetic hormone
C; Comment: This peptide raises hemolymph levels of trehalose in the cockroach Periplanet C; Superfamily: adipokinetic hormone
C; Comment: This peptide carboxylic acid (Gln) #status experimental
F; B; Binding site: carbohydrate (Trp) (covalent) #status experimental
F; D; Modified site: amidated carboxyl end (Thr) #status experimental
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R;Gaede, G.; Rinehart, K.L.
Biol. Chem. Hoppe-Seyles 371, 345-354, 1990
A;Title: Primary structures of hypertrehalosaemic neuropeptides isolated from the corpor entalis and of the stick insect Extatosoma tiaratum assigned by tandem fast atom bombard A;Reference number: S08995; MUD:90253659; PMID:2340112
A;Reference number: protein
A;Residues: 1-10 cGAE>
A;Cross-references: UNIPROT:P11385
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C;Species: Heliothis zea (bollworm, corn earworm, tomato fruitworm)
C;Species: Heliothis zea (bollworm, corn earworm, tomato fruitworm)
C;Date: 30-Jun-1999 #sequence_revision 23-Mar-1995 #text_change 09-Jul-2004
C;Accession A31571
R;Jaffe, H:; Raina, A.K.; Riley, C.T.; Fraser, B.A.; Bird, T.G.; Tseng, C.M.; Zhang, Y.S Biochem. Biophys. Res. Commun. 155, 344-350, 1988
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NiAlternate names: Can-HTH-II
CiSpecies: Extatosoma tiaratum
CiSpecies: 30-Jun-1992 #sequence_revision 24-Oct-1997 #text_change 09-Jul-2004
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hypertrehalosemic/adipokinetic hormone - bollworm
N/Alternate names: Haz-Hurny
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Best Local Similarity 25.v.
Local 2; Conservative
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Best Local Similarity 25.0°
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neuropeptide Led-CC-II - Colorado potato beetle
C;Species: Leptinotarsa decemlineata (Colorado potato beetle)
C;Species: Leptinotarsa decemlineata (Colorado potato beetle)
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 09-Jul-2004
C;Accession: B44960
R;Gaede, G.; Kellner, R.
A;Gaede, G.; Kellner, R.
A;Title: The metabolic neuropeptides of the corpus cardiacum from the potato beetle and A;Reference number: A44960; MUID:90160053; PMID:2576128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Cross-references: UNIPROT:P04549
C;Superfamily: adipokinetic hormone
C;Keywords: blocked carboxyl end; corpora cardiaca; hormone; neuropeptide; pyroglutamic
C;Keywords: blocked carboxyl end; corpora cardiaca; hormone; neuropeptide; pyroglutamic
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;8/Modified site: blocked carboxyl end (Trp) (probably amidated) #status experimental
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C;Species: Protophormia terraenovae (nestling-sucking blowfly)
C;Date: 17-Apr-1993 #sequence_revision 17-Apr-1993 #text_change 09-Jul-2004
C;Accession: 311548 # .; Kellner, R.
B;Gaede, G.; Wilps, H.; Kellner, R.
Biochem. J. 269, 309-313, 1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C;Species: Ischnura senegalensis
C;Date: 28-0ct-1997 #sequence_revision 31-0ct-1997 #text_change 09-Jul-2004
C;Accession: A58620
R;Janssens, M.P.E.; Kellner, R.; Gaede, G.
Biochen, J. 302, 539-543, 1994
A;Fitle: A novel adipokinetic octapeptide found in the damselflies Pseudagr: A,Reference number: S55310; MUID:94379987; PMID:8093008
                                                              Gaps
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   Length 8;
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                                  .8e+05;
Score 21; DB 2;
Pred. No. 2.8e+05
                                                        4; Mismatches
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A, Modecule type: protein
A, Residues: 1-8 -JAN-
A, Cross-references: UNIPROT: Q7M4H6
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   87.5%;
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Matches 2; Conser
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Best Local Similarity
Matches 2; Conserv
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NFSPNW
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                                                                           IG H Chain V-D-J region (clone B-less 17) - mouse (fragment)
C; Species: Mus musculus (house mouse)
C; Species: Mus musculus (house mouse)
C; Date: 0.2 Jun-1994 #sequence_revision 02-Jun-1994 #text_change 17-Mar-1999
C; Accession: PH1613
R; Levinson, D.A.; Campos-Torres, J.; Leder, P.
J. Exp. Med. 178, 317-329, 1993
A; Title: Molecular characterization of transgene-induced immunodeficiency in B-less mice A; Reference number: PH163
A; Molecular type: DNA
A; Molecular type: DNA
A; Molecule type: DNA
A; Residues: 1-15 < LEV>
A; Experimental source: bone marrow pre-B lymphocyte
C; Keywords: immunoglobulin
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C,Keywords: amidated carboxyl end; corpora cardiaca; hormone; neuropeptide; pyroglutamid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status predicted
F;8/Modified site: amidated carboxyl end (Trp) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C;Species: Tabanus atratus (black horse fly)
C;Date: 23-Mar-1990 #sequence_revision 23-Mar-1990 #text_change 09-Jul-2004
C;Accession: A33995
R;Jaffe, H.; Raina, A.K.; Riley, C.T.; Fraser, B.A.; Nachman, R.J.; Vogel, V.W.; Zhang, Proc. Natl. Acad. Sci. U.S.A. 86, 8161-8164, 1989
A;Title: Primary structure of two neuropeptide hormones with adipokinetic and hypotrehal A;Reference number: A33995; MUID:90046758; PMID:2813385
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R;Gaede, G.; Kellner, R.
A;Title: The metabolic neuropeptides of the corpus cardiacum from the potato beetle and A;Reference number: A44960; MUID:90160053; PMID:2576128
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C;Species: Leptinotarsa decemlineata (Colorado potato beetle)
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 09-Jul-2004
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Pred. No. 2.7e+03;
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Best Local Similarity 28.0.
Best Local Similarity 28.0.
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A,Molecule type: protein
A,Residues: 1-8 <JAF>
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9 YFTMLWT 15
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3 TFTPGW 8
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C;Comment: This neuropeptide, isolated from the eyestalks of the shrimp and active in p: zed pigment-containing cells.

Zed pigment-containing cells.

Z;Superfamily: adipokinetic hormone

C;Superfamily: adipokinetic hormone

C;Keywords: amidated carboxyl end; blocked amino end; hormone; neuropeptide; pyroglutam:

F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental

F;8/Modified site: amidated carboxyl end (Trp) #status experimental
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Best Local Similarity
Matches 2; Conserv
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3 NFSPGW 8
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3 NFTPSW 8
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() Alterence names: Diamorming normone

() Species: Pandalus borealis (northern shrimp)

() Date: 02-Aug-1994 #sequence_revision 05-Aug-1994 #text_change 09-Jul-2004

() Accession: Al348, S07139

() Arcession: A01348, S07139

() Argerence number: A61348, MUID: 72228738; PMID: 5041363

() Argerence number: A61348

() Argerence number: A6139; MUID: 75054965; PMID: 4433569

() Argerence number: A67139

() Argerence number: A67139; MUID: 75054965; PMID: 4433569

() Argerence number: A67139; MUID: 75054965; PMID: 4433569

() Argerence number: A67139; MUID: 75054965; PMID: 4433569

() Argerence number: A67139

() Argerence number: A77130

() A
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NyAlternate names: Psi-AKH
CiSpecies: Pseudagrion inconspicuum
CiSpecies: Pseudagrion inconspicuum
CiSpecies: Pseudagrion inconspicuum
CiSpacies: Pseudagrion inconspicuum
CiSpacies: Pseudagrion inconspicuum
CiSpacies: Pseudagrion inconspicuum
CiAccession: S55310
RiJanssens, M.P.B.; Kallner, R.; Gaede, G.
Biochem, U. 302, 539-543, 1994
A;Title: A novel adipokinetic octapeptide found in the damselflies Pseudagrion inconspic
A;Reference number: S55310; MUID:94379987; PMID:8093008
A;Reference number: S55310; MUID:94379987; PMID:8093008
A;Residues: 1-8 cJAN>
A;Cross-references: UNIPROT:Q7M4H7
C;Superfamily: adipokinetic hormone
C;Keywords: amidated carboxyl end; hormone; neuropeptide; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;8/Modified site: amidated carboxyl end (Trp) #status experimental
                                         A.Reference number: $11545; MUD:90351345; PMID:2386478
A.Reference number: $11545
A.Accession: $11545
A.Ac
     the red-pigment-concentrat
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Pred. No. 2.8e+05;
4; Mismatches 0; Indels
A, Title: Isolation and structure of a novel charged member of
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87.5%; Score 21; DB 2; Les
Best Local Similarity 33.3%; Pred. No. 2.8e+05;
Matches 2; Conservative 4; Mismatches 0;
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Best Local Similarity 33.3%;
Matches 2; Conservative
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3 NFTPGW 8
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3 TFSPDW
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C;Accession: S10596
R;Gaede, G.
Ridaede, G.
A;Title: The putative ancestral peptide of the adipokinetic/red-pigment-concentrating hc
A;Reference number: S10596; MUID:901359055; PMID:2390213
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A; Cross-references: UNIPROT: P25418
C; Comment: This peptide has both adipokinetic and hypertrehalosemic activities.
C; Superfamily: adipokinetic hormone
C; Superfamily: adipokinetic hormone
C; Keywords: amidated carboxyl end; corpora cardiaca; hormone; neuropeptide; pyroglutamic
F; I/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F; 8/Modified site: amidated carboxyl end (Trp) #status experimental
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A;Residues: 1-8 cGAE>
A;Cross-references: UNIPROT:P04548
A;Note: the amino-terminal residue forms pyrrolidone carboxylic acid; therefore,
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C; Date: 30-Unn-1992 #sequence_revision 24-Oct-1997 #text_change 09-Jul-2004
C; Accession: S08995
R; Gaede, G.; Rinchart, K.L.
Biol. Chem. Hoppe-Seyler 371, 345-354, 1990
A; Title: Primary structures of hypertrehalosaemic neuropeptides isolated from the structures of hypertrehalosaemic neuropeptides isolated from the structures of hypertrehalosaemic solutions isolated from the structures of hypertrehalosaemic neuropeptides isolated from the structures of hypertrehalo
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            daipokinetic hormone - pond skimmer
C;Species: Libellula auripennis
C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 09-Jul-2004
                                                                                                               Gaps
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Score 21; DB 2; Length 8; Pred. No. 2.8e+05; 4; Mismatches 0; Indels
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Query Match
Best Local Similarity 33.3%;
Matches 2; Conservative
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A; Molecule type: protein
A; Molecule type: protein
A; Molecule type: protein
A; Residues: 1-8 < SCA>
A; Cross-references: UNIPROT: P04549
B; Cross-references: UNIPROT: P04549
B; Witten, J.L.; Schaffer, M.H.; O'Shea, M.; Cook, J.C.; Hemling, M.E.; Rinehart Jr., K., Biochem. Blochem. Blochys. Res. Commun. 124, 350-358, 1984
A; Title: Structures of two cockroach neuropeptides assigned by fast atom bombardment ma A; Reference number: A90118; MUID: 85046530; PMID: 6548628
A; Accession: A05170
A; Accession: B, 2-8 < WIT>
C; Superfamily: adipokinetic hormone
C; Superfamily: adipokinetic hormone
C; Superfamily: adipokinetic carboxylic acid (Gln) #status experimental
F; 1/Modified site: pyrrolidone carboxyl end (Trp) #status experimental
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A.Note: the amino-terminal residue forms pyrrolidone carboxylic acid; therefore, we hav.
S.Superfamily: adipokinatic hormone
C.Superfamily: amidated carboxyl end; corpora cardiaca; hormone; neuropeptide; pyroglutamiv:
F:1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F:8/Modified site: amidated carboxyl end (Trp) #status experimental
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C,Superfamily: adipokinetic hormone
C,Keywords: amidated carboxyl end, corpora cardiaca, hormone, neuropeptide, pyroglutamic
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
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NyAlternate names: AKH-G

C;Speciaes: Gryllus bimaculatus (two-spotted cricket)

C;Date: 30-Jun-1989 #sequence_revision 24-Oct-1997 #text_change 09-Jul-2004

C;Accession: A28004

R;Gaede, G.; Rinehart, K.L.

Biochem. Biophys. Res. Commun. 149, 908-914, 1987

A;Title: Primary sequence analysis by fast atom bombardment mass spectrometry c

A;Reference number: A28004; MUID:88106553; PMID:3426616

A;Accession: A28004

A;Molecule type: protein

A;Residues: 1-8 cGAE>

A;Cross reference
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C;Date: 03-Feb-1993 #sequence_revision 03-Feb-1993 #text_change 09-Jul-2004
C;Accession: A43976
R;Gaede, G.; Rosinski, G.
Peptides 11, 455-459, 1990
A;Title: The primary structure of the hypertrehalosemic neuropeptide from teals. A;Reference number: A43976; MUID:90341081; PMID:2381871
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                 A; Reference number: A49823; MUID:84298179; PMID:6591205
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Pred. No. 2.8e+05;
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Pred. No. 2.8e+05;
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Best Local Similarity
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Matches 2; Conserv
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                                                                                                                                                                                                                                                                                              C;Species: Blatta orientalis (oriental cockroach)
C;Date: 30-Jun-1992 #sequence_revision 24-Oct-1997 #text_change 09-Jul-2004
C;Accession: 808996
R;Gaede, G.; Rinehart, K.L.
Biol. Chem. Hoppe-Seyler 371, 345-354, 1990
Biol. chem. Hoppe-Seyler
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Proc. Natl. Acad. Sci. U.S.A. 81, 5575-5579, 1984

A;Title: Isolation and primary structure of two peptides with cardioacceleratory and hyp. A;Reference number: A49823; MUID:84298179; PMID:6591205

A;Accession: A49823

A;Accession: A49823

A;Accession: A49823

A;Accession: A49823

A;Cross-references: UNIPROT:P04548

A;Cross-references: UNIPROT:P04548

C;Superfamily: adipokinetic hormone

C;Superfamily: adipokinetic hormone

C;Superfamily: adipokinetic hormone

C;Superfamily: adipokinetic hormone

F;Movords: amidated carboxyl cardiaca; hormone; neuropeptide; pyroglutamic

F;1/Modified site: pyrrolidone carboxyl end (Trp) #status experimental
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R;Scarborough, R.M.; Jamieson, G.C.; Kalish, F.; Kramer, S.J.; McEnroe, G.A.; Miller, C.
Proc. Natl. Acad. Sci. U.S.A. 81, 5575-5579, 1984
A;Title: Isolation and primary structure of two peptides with cardioacceleratory and hyp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Residues: 1-8 <GAE>
A;Cross-references: UNIRROT:P04549
A;Cross-references: UNIRROT:P04649
C;Superfamily: adipokinetic hormone
C;Superfamily: adipokinetic hormone
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NyAlternate names: neuropeptide M-II; periplanetin CC-1
C;Species: Periplaneta americana (American cockroach)
C;Date: 03-May-1994 #sequence_revision 03-May-1994 #text_change 09-Jul-2004
C;Accession: B49823; A05170.
R;Scarborough, R.M.; Jamieson C. V. 1-1-
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N;Alternate names: periplanetin CC-1
C;Species: Periplaneta americana (American cockroach)

    oriental cockroach

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Matches 2; Conservative
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A, Molecule type: protein
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RESULT 40
B43976
hypertrehalosemic hormone - beetle (Zophobas rugipes)
C;Species: Zophobas rugipes
C;Date: 03-Feb-1993 #sequence_revision 03-Feb-1993 #text_change 09-Jul-2004
C;Accession: B43976
R;Gaede G: Roainski, G
Peptides 11, 455-459, 1990
A;Title: The primary structure of the hypertrehalosemic neuropeptide from tenebrionid be A;Reference number: A43976; MUD:90341081; PMD:2381871
A;Accession: B43976
A;Accession: B43976
A;Accession: B43976
A;Coss-references: UNIPROT:P25419
C;Superfamily: adipokinatic hormone
C;Keywords: amidated carboxyl end; corpora cardisca; hormone; neuropeptide; pyroglutamic
C;Keywords: amidated carboxyl end; corpora cardisca; hormone; neuropeptide; pyroglutamic
F;8/Modified site: pyrrolidone carboxylic acid (GIn) #status experimental
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F;8/Modified site: amidated carboxyl end (Trp) #status experimental
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87.5%; Score 21; DB 2; Length 8;
Best Local Similarity 33.3%; Pred. No. 2.8e+05;
Matches 2; Conservative 4; Mismatches 0; Indels
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cytochrome-c oxidase (BC 1.9.3.1) chain I - Hoplocercus spinosus mitochondrion (fragment. C;Species: mitochondrion Hoplocercus spinosus
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 09-Jul-2004
                                                                                                                                                                                                                                RiMacey, J.R.; Larson, A.; Ananjeva, N.B.; Papenfuss, T.J.
J. Mol. Evol. 44, 660-674, 1997.
A;Title: Evolutionary shifts in three major structural features of the mitochondrial gen
A;Reference number: Z18674; MUID:97315309; PMID:9169559
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A;Cross-references: UNIPROT:079897; EMBL:U82683; NID:g3603124; PID:g3603127; PIDN:AAC622
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C;Species: mitochondrion Leiocephalus carinatus
C;Date: 23-Jul-1999 #sequence_revision 23-Jul-1999 #text_change 09-Jul-2004
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R;Schulte, J.A.; Macey, J.R.; Larson, A.; Papenfuss, T.J.
R;Schulte, J.A.; Macey, J.R.; Larson, A.; Papenfuss, T.J.
A;Title: Molecular tests of phylogenetic taxonomies: A general procedure and example us1
A;Reference number: Z17488; MUID:99162288; PMID:10051389
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A;Molecule type: DNA
A;Residues: 1-10 <SCH>
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A;Molecule type: DNA
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C, Keywords: mitochondrion; oxidoreductase
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C;Date: 08-Nov-1991 #sequence_revision 08-Nov-1991 #text_change 30-Sep-1993
C;Accession: C39191
C;Accession: C39191
R;Specr, B.S.; Bedzyk, L.; Salyers, A.A.
J. Bacteriol. 173, 176-183, 1991
J. Bacteriol. 173, 176-183, 1991
A;Title: Evidence that a novel tetracycline resistance gene found on two Bacteroides tra
A;Reference number: A39191; MUID:91100280; PMID:1846135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Residues: 1-9 <HAU>
A;Cross-references: UNIPROT:Q28121; EMBL:U24113; NID:g775221; PIDN:AAA91014.1; PID:g7752
C;Genetics:
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R; Hauser, S.D.; McGrath, M.F.; Collier, R.J.; Krivi, G.G.
Mol. Cell. Endocrinol. 72, 187-200, 1990
A; Title: Cloning and in vivo expression of bovine growth hormone receptor mRNA. A; Reference number: 146023; MUID:91146804; PMID:2289631
A; Accession: 146023
A; Status: preliminary; translated from GB/EMBL/DDBJ
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C;Species: Bos primigenius taurus (cattle)
C;Date: 16-Aug-1996 #sequence_revision 16-Aug-1996 #text_change 09-Jul-2004
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Species: Bacteroides fragilis
|Date: 08-Nov-1991 #sequence_revision 08-Nov-1991 #text_change 30-Sep-1993
Accession: C39191
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C90981
S16376
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PH1580
A61530
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B49404
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805917
805923
                  C28587
F53284
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A,Residues: 1-10 <SPE>
A,Cross-references: GB:M37699
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Cysteine proteinase (EC 3.4.22.-) B - Freesia reflacta ssp. 'Golden leader' (fragment) (Species: Freesia reflacta ssp. 'Golden leader' (journal 10.80v-1997) #sequence_revision 10-Nov-1997 #text_change 09-Jul-2004 (C,Accession: PC4391 R;Kaneda, M.; Yonezawa, H.; Uchikoba, T. R;Kaneda, M.; Yonezawa, H.; Uchikoba, T. Ajbisci. Blocechnol. Biochem. 61, 1554-1559, 1997 A;Title: Purification and characterization of a cysteine protease from corms of freesia A;Reference number: PC4391; MUID:97480942; PMID:9339558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Molecule type: protein
A; Residues: 1-13 <KAN>
A; Cross-references: UNIPROT: Q7M1F5
A; Experimental source: corms
C; Comment: This enzyme plays many proteolytic functions in intracellular and extracellu
C; Keywords: cysteine proteinase; hydrolase
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A;Molecule type: DNA
A;Residues: 1-19 <MON>
A;Cross-references: UNIPROT:Q44506; EMBL:X69898; NID:g296503; PIDN:CAA49521.1; PID:g296
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protein-tyrosine kinase (EC 2.7.1.112) 1, neuron-specific - human (fragment)
C;Species: Homo sapiens (man)
C;Species: Homo sapiens (man)
C;Date: 06-Jul-1990 #sequence_revision 06-Jul-1990 #text_change 09-Jul-2004
C;Accession: A34704
B;Pyper, J.M.; Bolen, J.B.
Mol. Cell. Biol. 10, 2035-2040, 1990
A;Title: Identification of a novel neuronal C-SRC exon expressed in human brain.
A;Reference number: A34704; MUID:90220588; PMID:1691439
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C;Species: Anabaena variabilis
C;Species: Anabaena variabilis
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 09-Jul-2004
C;Accession: S3.675
R;Monnerjahn, U.; Boehme, H.
submitted to the EMBL Data Library, December 1992
A;Description: Cloning and expression in E. coli of the Anabaena.
A;Reference number: S32675
A;Accession: S32675
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A,Residues: 1-17 <PYP>
A,Cross-references: UNIPROT:014925
C,Keywords: ATP; phosphotransferase; tyrosinė-specific protein kinase
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100.0%; Score 23; DB 2; Length 17;
Best Local Similarity 25.0%; Pred. No. 1.6e+03;
Matches 2; Conservative 6; Mismatches 0; Indels
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Best Local Similarity
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C;Species: mitochondrion Phrynosoma douglassii
C;Species: mitochondrion Phrynosoma douglassii
C;Bate: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 09-Jul-2004
C;Accession: T17069

R;Macey, J.R.; Larson, A.; Ananjeva, N.B.; Papenfuss, T.J.
J. Mol. Evol. 44, 660-674, 1997
A;Title: Evolutionary shifts in three major structural features of the mitochondrial gen A;Reference number: Z18674; MUID:97315309; PMID:9169559
A;Retus: preliminary; translated from GB/EMBL/DDBJ
A;Rocession: T17069
A;Retus: preliminary; translated from GB/EMBL/DDBJ
A;Residues: 1-10 cMAC>
A;Cross-references: UNIPROT:079906; EMBL:U82686; NID:g3603144; PID:g3603147; PIDN:AAC622
C;Genetics:
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A;Note: COI
C;Keywords: mitochondrion; oxidoreductase
                         A;Accession: T17066
A;Astatus: preliminary; translated from GB/EMBL/DDBJ
A;Bolecule type: DNA
A;Residues: 1.10 cMAC>
A;Crose-references: UNIPROT:079903; EMBL:U82685; NID:g3603136; PID:g3603139; PIDN:AAC622
C;Genetics: ceferences: mitochondrion
A;Genome: mitochondrion
A;Note: COI
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C;Species: mitochondrion Stenocercus crasicaudatus
C;Date: 23-Jul-1999 #sequence_revision 23-Jul-1999 #text_change 09-Jul-2004
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Cyaces 25-041-1999 #text_change 09-041-2004
Cyaces 25-041-1999 #text_change 09-041-2004
Rischulte, J.A.; Macey, J.R.; Larson, A.; Papenfuss, T.J.
Rischulte, J.A.; Macey, J.R.; Larson, A.; Papenfuss, T.J.
A;Title: Molecular tests of phylogenetic taxonomies: A general procedure and example usi A;Reference number: 217488; MUID:99162288; PMID:10051389
A;Accession: 12329
A;Accession: T12329
A;Accession: T12329
A;Molecule type: DNA
A;Residues: DNA
A;Residues: 1-10 <SCH>
C;Genetics:
C;Genetics:
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A; Reference number: Z18674; MUID: 97315309; PMID: 9169559
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25.0%; Pred. No. 1e+03;
tive 6; Mismatches
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A;Note: COI
C;Keywords: mitochondrion; oxidoreductase
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Best Local Similarity 25.0
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2 FINRWFFS 9
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FINRWFFS 9
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C;Species: Bacillus sp.
C;Date: 24-Feb-1994 #sequence_revision 24-Feb-1994 #text_change 09-Jul-2004
C;Date: 24-Feb-1994 #sequence_revision 24-Feb-1994 #text_change 09-Jul-2004
C;Accession: PHI380
R;Kawaguchi, T.; Nagae, H.; Murao, S.; Arai, M.
Biosci. Biotechnol. Biochem. 56, 1792-1796, 1992
A;Title: Purification and some properties of a Haim-sensitive alpha-amylase from newly i. A;Reference number: PHI380; MUID:93113087; PMID:1369074
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CiSpecies: Tabanus atratus (black horse fly)
CiSpecies: Tabanus atratus (black horse fly)
CiSpecies: Janar-1990 #sequence_revision 23-Mar-1990 #text_change 09-Jul-2004
CiAccession: B33995
RiJaffe, H.; Raina, A.K.; Riley, C.T.; Fraser, B.A.; Nachman, R.J.; Vogel, V.W.; Zhang, Arcor. Natl. Acad. Sci. US.A. 86, 8161-8164, 1989
A;Title: Primary structure of two neuropeptide hormones with adipokinetic and hypotrehal/A;Reference number: A33995; MUID:90046758; PMID:2813385
A;Accession: B33995
A;Residues: 1-10 cAAR>
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C;Species: Spinacia oleracea (spinach)
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 09-Jul-2004
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 09-Jul-2004
C;Accession: PC1240; PC
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A;Experimental source: strain N0.195
C;Comment: This enzyme has an optimum pH of 7.0.
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C; Keywords: calcium binding; metal binding
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Best Local Similarity 25.0%,
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A, Residues: 1-20 <ME2>
A, Experimental source: leaf
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8 FEDGWENR 15
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A;Accession: PC1241
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C;Date: 05-Aug-1994 #sequence_revision 05-Aug-1994 #text_change 02-Sep-2000
C;Date: 05-Aug-1994 #sequence_revision 05-Aug-1994 #text_change 02-Sep-2000
C;Date: 05-Aug-1994 #sequence_revision 05-Aug-1994 #text_change 02-Sep-2000
R;Accession: No.171
R;Pukaya, N.; Chow, L.P.; Sugiura, Y.; Tsugita, A.; Ueno, Y.; Tabuchi, K.
submitted to JIPID, May 1994
A;Pescription: Two dimensional polyacrylamide gel electrophoresis of Fusarium sporotrich
A;Pescription: Two dimensional polyacrylamide gel electrophoresis of Fusarium sporotrich
A;Reference number: PN0171
A;Molecule type: protein
A;Residues: 1-20 cFUK.
A;Residues: 1-20 cFUK.
A;Residues: 1-20 cFUK.
C;Superimental source: strain M-1-1
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A.R. Reference number: 877980
A.R. Residues: 877981
A.M. Residues: 1-20 ARN-
A.R. Residues: 
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N;Contains: cyclophilin
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;Species: Pusarium sporotrichioides
;Date: 05-Aug-1994 #sequence_revision 05-Aug-1994 #text_change 02-Sep-2000
;Accession: PN0171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cytochrome-c oxidase (EC 1.9.3.1) chain Va.1 - bigeye tuna (fragment) C;Species: Thunnus obeaus (bigeye tuna) C;Date: 17-Sep-1997 #sequence_revision 17-Sep-1997 #text_change 09-Jul-2004 C;Accession: S77981
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calcium-binding protein, 53K - spinach (fragment)
                                                              A,Gene: nifB
C,Superfamily: Rhizobium nifB protein
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12 FYEQWNKG 19
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11 FDARWVTY 18
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6 FDITWEGX 13
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Pred. No. 1.5e+03;
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       . 68;
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Similarity 28.6%;
2; Conservative
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Matches 2; Conservative
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FSPGWGT 10
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4 FSPGWGT 10
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FSPGWGT 10
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Matches 2; Conserv
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          Best Local
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C;Species: Blattella germanica (German cockroach)
C;Date: 03-Peb-1993 #sequence_revision 03-Peb-1993 #text_change 09-Jul-2004
C;Accession: A60421, 809137
R;Veenstra, J.A.; Camps, F.
Neuropeptides 15, 107-109, 1990
A;Title: Structure of the hyperrehalosemic neuropeptide of the German cockroach, Blatte
A;Reference number: A60421; MUD:9119584; PMID:2080017
A;Residues: 1-10 <VEES
A;Cross-references: UNIPROT: P10939
R;Gaede, G; Rinchart, K.L.
Biol. Chem. Hoppe-Seyler 371, 345-354, 1990
A;Title: Primary structures of hypertrehalosemic neuropeptides isolated from the corpor entalls and of the stick insect Extatosoma tiaratum assigned by tandem fast atom bombard
A;Reference number: S08995; MUD:90253659; PMID:2340112
A;Residues: 1-10 <GAES
A;Residues: 1-10 <GAES
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R;Gaede, G.; Rinehart, K.L.
Biol. Chem. Hoppe-Seyler 371, 345-354, 1990
A;Title: Primary structures of hypertrehalosaemic neuropeptides isolated from the corpor entalis and of the stick insect Extatosoma tiaratum assigned by tandem fast atom bombard A;Reference number: S08995; MuID:90253659; PMID:2340112
A;Residues: 1-10 GGES.
A;Cross-references: UNIPROT:P10939
C;Superfamily: adinokination-
                      C;Superfamily: adipokinetic hormone
C;Keywords: amidated carboxyl end; corpora cardiaca; hormone; neuropeptide; pyroglutamic
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status predicted
F;10/Modified site: amidated carboxyl end (Tyr) #status predicted
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C;Superfamily: adipokinetic hormone
C;Keywords: amidated carboxyl end; hormone; neuropeptide; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;10/Modified site: amidated carboxyl end (Thr) #status experimental
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                                                                                                                                              Score 22; DB 2; Length 10;
Pred. No. 1.5e+03;
5; Mismatches 0; Indels
                                                                                                                                                 95.7%; Score 22;
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A; Cross-references: UNIPROT: P14596
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Matches 2; Conservative
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1es 2; Conservative
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FTPGWGY 10
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C;Accession: S08998
R;Gaede, G.; Rinehart, K.L.
Ridade, G.; Rinehart, K.L.
A;Title: Primary structures of hypertrehalosaemic neuropeptides isolated from the corpoentalis and of the stick insect Extacosoma tiaratum assigned by tandem fast atom bombar. A;Reference number: S08995; MUID:90253659; PMID:2340112
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R;Gade, G; Rinehart Jr., K.L.
A;Title: Amino acid sequence of a hypertrehalosaemic neuropeptide from the corpus cardi A;Reference number: A26381; MUID:87100208; PMID:3801028
A;Accession: A26381
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A; Residues: 1-10 cGAD>
A; Cross-references: UNIPROT:P10939
A; Note: the amino-terminal residue forms pyrfolidone carboxylic acid; therefore,
C; Superfamily: adipokinetic hormone
C; Superfamily: adipokinetic hormone
C; Reywords: amidated carboxyl end; hormone; neuropeptide; pyroglutamic acid
F; 1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F; 10/Modified site: amidated carboxyl end (Thr) #status experimental
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C;Keywords: amidated carboxyl end; hormone; neuropeptide; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;10/Modified site: amidated carboxyl end (Thr) #status experimental
                                                                                                                                                                                                                                                                                                                                                     hypertrehalosemic neuropeptide Bld-HrTH - Madeira cockroach
C;Species: Leucophaea maderae (Madeira cockroach)
C;Date: 30-Jun-1992 #sequence_revision 14-Sep-1994 #text_change 09-Jul-2004
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NiAlternate names: neuropeptide Cam-HrTH-I
NiContains: hypertrehalosemic factor II
CiSpecies: Carausius morosus
CiSpecies: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 09-Jul-2004
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C;Date: 31-Mar-1988 #sequence_revision 24-Oct-1997 #text_change 09-Jul-2004
    Gaps
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Pred. No. 1.5e+03;
5, Mismatches 0; Indels
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95.7%; Score 22; DB 2; Length 10;

Query Match

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A,Title: Isolation and primary structure of a neuropeptide hormone from Heliothis zea w; A;Reference number: A31571; MUID:88326324; PMID:3415690
A;Accession: A31571
A;Accession: A31571
A;Residues: 1-10 <4AF>
A;Cross-references: UNIPROT:P16353
C;Superfamily: adipokinetic hormone
C;Superfamily: adipokinetic hormone
C;Keywords: amidated carboxyl end; corpora cardiaca; hormone; neuropeptide; pyroglutamic F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;10/Modified site: amidated carboxyl end (Asn) #status experimental
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R;Gaede, G.; Janssens, M.P.E.
Biol. Chem. Hoppe-Seyler 375, 803-809, 1994
A;Title: Cicadas contain novel members of the AKH/RPCH family peptides with hypertrehalor A;Reference number: S53789; MUID:95225985; PMID:7710694
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R;Jaffe, H.; Raina, A.K.; Riley, C.T.; Fraser, B.A.; Holman, G.M.; Wagner, R.M.; Ridgway, Biochem. Biophys. Res. Commun. 135, 622-628, 1986
A;Title: Isolation and primary structure of a peptide from the corpora cardiaca of Helio A;Reference number: A2424; MUID:86186794; PMID:3964263
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C; Superfamily: adipokinetic hormone
C; Superfamily: adipokinetic hormone
C; Superfamily: adipokinetic hormone
C; Superfamily: adipokinetic hormone
F; I/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F; P; P/Modified site: amidated carboxyl end (Gly) #status experimental
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N;Alternate names: Hez-AKH
C;Species: Heliothis zea (bollworm, corn earworm, tomato fruitworm)
C;Date: 31-Mar-1988 #sequence_revision 23-Mar-1995 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             neuropeptide Pec-HrTH - Platypleura capensis
C;Species: Platypleura capensis
C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 09-Jul-2004
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Pred. No. 2.8e+05;
4; Mismatches 0; Indels
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28.6%; Pred. No. 1.5e+03;
Itive 5; Mismatches 0; Indels
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C;Keywords: blocked amino end; blocked carboxyl end
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Similarity 33.3%;
2; Conservative '
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A, Molecule type: protein
A, Residues: 1-9 <JAF>
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4 FSPSWGN 10
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4 FSSGWGN 10
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Best Local Similarity
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4 FTSSWG 9
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Ridaede, G.; Rinehart, K.L.
Biol. Cham. Hoppe-Seyler 31, 345-354, 1990
A.Title: Primary structures of hypetrehalosaemic neuropeptides isolated from the corpor entalis and of the stick insect Extatosoma tiaratum assigned by tandem fast atom bombard A.Title: Primary structures of hypetrehalosaemic neuropeptides isolated from the corpor entalis and of the stick insect Extatosoma tiaratum assigned by tandem fast atom bombard A.Feference number: 508995; MUID:90253659; PMID:2340112
A.Accession: 509138
A.Accession: 509138
A.Accession: 608785
A.Acce
                                                                                                                                                                                                                                                   A;Molecule type: protein
A;Molecule type: protein
A;Molecule type: protein
A;Molecule type: protein
A;Residues: 1-10 cdAE1>
A;Residues: 1-10 cdAE1>
Biol. Chem. Hoppe-Seyler 368, 67-75, 1987
A;Title: Primary structure of the hypertrehalosaemic factor II from the corpus cardiacum
A;Reference number: 807157; MUID:87157103; PMID:3828078
A;Accession: 807157
A;Molecule type: protein
A;Residues: 'Z',2-10 cdAE2>
C;Comment: Hypertrehalosemic factor II lacks the tryptophan modification.
C;Comment: This peptide raises hemolymph levels of trehalose in the cockroach Periplanet C;Superfamily: adipokinetic hormone
C;Keywords: amidated carboxyl end; glycoprotein; hormone; neuropeptide; pyroglutamic aci
C;Keywords: amidated carboxyl end; glycoprotein; hormone; neuropeptide; pyroglutamic aci
F;Blanding site: carboxyler acid (SID) #status experimental
F;Blanding site: carboxylend (Trp) (covalent) #status experimental
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C;Species: Heliothis zea (bollworm, corn earworm, tomato fruitworm)
C;Species: Heliothis zea (bollworm, corn earworm, tomato fruitworm)
C;Date: 30-Jun-1989 #sequence_revision 23-Mar-1995 #text_change 09-Jul-2004
C;Accession: A11571
R;Jaffe, H.; Raina, A.K.; Riley, C.T.; Fraser, B.A.; Bird, T.G.; Tseng, C.M.; Zhang, Y.S
Biochem. Biophys. Res. Commun. 155, 344-350, 1988
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                                                                                                                                            family isolated from a stick
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NiAlternate names: Cam-HTH-II
CiSpecies: Extatosoma tiaratum
CiSpecies: 30-Jun-1992 #sequence_revision 24-Oct-1997 #text_change 09-Jul-2004
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 95.7%; Score 22; DB 2; Length 10; Best Local Similarity 28.6%; Pred. No. 1.5e+03; Matches 2; Conservative 5; Mismatches 0; Indels
C; Accession: JC1416; S07157
R; Gaede, G.; Kellner, R.; Rinehart, K.L.; Proefke, M.L.
B; Cchem. Biophys. Res. Commun. 189, 1303-1309, 1992
A; Title: A tryptophan-substituted member of the AKH/RPCH
A; Reference number: JC1416; MUID:93129188; PMID:1482345
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4 FTPNWGT 10
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Best Local Similarity
Matches 2; Conserv
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neuropeptide Led-CC-II - Colorado potato beetle
C;Species: Leptinotarsa decemlineata (Colorado potato beetle)
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 09-Jul-2004
C;Accession: B44960
R;Gacde, G:; Kellner, R.
Peptides 10, 1287-1289, 1989
A;Title: The metabolic neuropeptides of the corpus cardiacum from the potato beetle and A;Reference number: A44960; MUID:90160053; PMID:2576128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C;Species: Ischnura senegalensis
C;Date: 28-Oct-1997 #sequence_revision 31-Oct-1997 #text_change 09-Jul-2004
C;Accession: A58620
R;Janssens, M.P.E.; Kellner, R.; Gaede, G.
Biochem. J. 302, 539-543, 1994
A;Title: A novel adipokinetic octapeptide found in the damselflies Pseudagrion inconspical A;Reference number: S55310; MUID:94379987; PMID:8093008
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C; Superfamily: adipokinetic hormone
C; Superfamily: adipokinetic hormone
C; Superfamily: adipokinetic hormone
C; Superfamily: adipokinetic hormone
F; I/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F; B/Modified site: blocked carboxyl end (Trp) (probably amidated) #status experimental
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C;Superfamily: adipokinetic hormone
C;Superfamily: amidated carboxyl end, hormone; neuropeptide; pyroglutamic acid
C;Keywords: amidated carboxyl end, carboxylic acid (Gln) #status experimental
F;B/Modified site: pyrrolidone carboxyl end (Trp) #status experimental
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C;Species: Protophormia terraenovae (nestling-sucking blowfly)
C;Date: 17-Apr-1993 #sequence_revision 17-Apr-1993 #text_change 09-Jul-2004
C;Accession: S11545
R;Gaede, G.; Wilpe, H.; Kellner, R.
Biochem. J. 269, 309-313, 1990
                                                        Gaps
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  Length 8;
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Score 20; 'DB 2; ]
Pred. No. 2.8e+05;
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87.0%;
40.0%;
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Similarity 40.0%;
2; Conservative
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Matches 2; Conservative
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A,Molecule type: protein
A,Residues: 1-8 <GAE>
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A;Molecule type: protein
A;Residues: 1-8 <JAN>
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Matches 2; Conserv
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Query Match
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Matches
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S11545
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B44960
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                                                                      Ig H chain V-D-J region (clone B-less 17) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 02-Jun-1994 #sequence_revision 02-Jun-1994 #text_change 17-Mar-1999
C;Accession: PHIG13
K;Levinson, D.A.; Campos-Torres, J.; Leder, P.
J. Exp. Med. 178, 317-329, 1993
A;Title: Molecular characterization of transgene-induced immunodeficiency in B-less mice
A;Reference number: PHIS80; MUID:93301609; PMID:8315387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C;Superfamily: adipokinetic hormone
C;Keywords: amidated carboxyl end; corpora cardiaca; hormone; neuropeptide; pyroglutamic
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status predicted
F;8/Modified site: amidated carboxyl end (Trp) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C; Accession: A33995
R; Jaffe, H.; Raina, A.K.; Riley, C.T.; Fraser, B.A.; Nachman, R.J.; Vogel, V.W.; Zhang, Proc. Natl. Acad. Sci. U.S.A. 86, 8161–8164, 1989
A; Title: Primary structure of two neuropeptide hormones with adipokinetic and hypotrehal A; Reference number: A33995; MUD: 90046758; PMID: 2813385
A; Accession: A33995
A; Molecule type: protein
A; Residues: 1-8 <JAF>
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R;Gaede, G.; Kellner, R.
Peptides 10, 1287-1289, 1989
A;Title: The metabolic neuropeptides of the corpus cardiacum from the potato beetle and A;Reference number: A44960; MUID:90160053; PMID:2576128
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S. Superfamily: adipokinetic hormone
C; Superfamily: adipokinetic hormone
C; Keywords: blocked carboxyl end; corpora cardiaca; hormone; neuropeptide; pyroglutamic
C; Keywords: blocked carboxyl end; corpora cardiaca; heratus experimental
F; 1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F; 8/Modified site: blocked carboxyl end (Trp) (probably amidated) #status experimental
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C;Species: Tabanus atratus (black horse fly)
C;Date: 23-Mar-1990 #sequence_revision 23-Mar-1990 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              neuropeptide Led-CC-I - Colorado potato beetle
C;Species: Leptinotarsa decemlineata (Colorado potato beetle)
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 09-Jul-2004
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Pred. No. 2.8e+05;
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Pred. No. 3.1e+03;
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A;Molecule type: DNA
A;Residues: 1-15 <LEV>
A;Experimental source: bone marrow pre-B lymphocyte
C;Keywords: immunoglobulin
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Best Local Similarity 40...
Best Local 2; Conservative
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Best Local Similarity 33.3
Matches 2; Conservative
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Comment: This neuropeptide, isolated from the eyestalks of the shrimp and active in
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Best Local Similarity 40.0
Matches 2; Conservative
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                                                                                                          A;Accession: S11545
A;Molecule type: protein
A;Molecule type: protein
A;Molecule type: protein
A;Cross-references: 1-8 cGAE>
C;Superfamily: adipokinetic hormone
C;Superfamily: adipokinetic hormone
C;Superfamily: adipokinetic hormone
F;1/Modified site: pyrrolidone carboxyl acid (Gln) #status experimental
F;8/Modified site: amidated carboxyl end (Trp) #status experimental
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       A; Title: Isolation and structure of a novel charged member of the red-pigment-concentrat
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NyAlternate names: blanching hormone
Cispectes: Randalus borealis (northern shrimp)
Cibate: 02-Aug-1994 #sequence_revision 05-Aug-1994 #text_change 09-Jul-2004
CiAccession: A61348; S07139
RiFernlund, P: JOSEfsson, L.
Science 177, 173-175, 1972
A/Title: Crustacean color-change hormone: amino acid sequence and chemical synthesis.
A/Reference number: A61348; MUID: 72228738; PMID: 5041363
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R/Fernlund, P.
R/Fernlund, P.
A/TILLE: Biophys. Acta 311, 304-311, 1974
A/TILLE: Structure of the red-pigment-concentrating hormone of the shrimp, Pandalus A/Reference number: S07139; MUID:75054965; PMID:4413569
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A;Residues: 'E',2-8 <FER2>
A;Note: the amino-terminal residue forms pyrrolidone carboxylic acid; therefore, we
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40.0%; Pred. No. 2.88+05; Usenstrhes 0; Indels
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    damselfly (Pseudagrion inconspicuum)

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A;Reference number: S11545; MUID:90351345; PMID:2386478
A;Accession: S11545
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40.0%; Pred. No. 2.8e+05;
iive 3; Mismatches 0;
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A, Molecule type: protein
A, Residues: 1-8 < FER1>
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4 FSPDW 8
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Biol. Chem. Hoppe-Seyler 371, 475-483, 1990
Affittle: The putestive ancestral peptide of the adipokinetic/red-pigment-concentrating hc
A;Reference number: $10596; MUID:90359055; PMID:2390213
A;Accession: $10596
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C;Comment: This peptide has both adipokinetic and hypertrehalosemic activities.
C;Comment: This peptide has both adipokinetic normone
C;Superfamily: adipokinetic hormone
C;Keywords: amidated carboxyl end; corpora cardiaca; hormone, neuropeptide; pyroglutamic F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;8/Modified site: amidated carboxyl end (Trp) #status experimental
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C;Species: Blatta orientalis (oriental cockroach)
C;Species: Blatta orientalis (oriental cockroach)
C;Species: Blatta orientalis (oriental cockroach)
C;Species: Date: 30-Jun-1992 #sequence_revision 24-Oct-1997 #text_change 09-Jul-2004
C;Accession: 808995
R;Gaede, G; Rinehart, K.L.
Biol. Chem. Hoppe-Seyler 371, 345-354, 1990
A;Title: Primary structures of hypertrehalosaemic neuropeptides isolated from the corporentalis and of the stick insect Extatosoma tiaratum assigned by tandem fast atom bombar;
A;Reference number: 808995; MUD:90253659; PMID:2340112
A;Accession: 808995
A;Molecule type: protein
A;Residues: 1-8 <GAES
A;Coss-references: UNIPROT:P04548
A;Coss-references: UNIPROT:P04548
A;Note: the amino-terminal residue forms pyrrolidone carboxylic acid; therefore, we have C;Superfamily: adipokinetic hormone
C;Superfamily: adipokinetic hormone
C;Superfamily: adipokinetic carboxyl end; hormone; neuropeptide; pyroglutamic acid
F;I/Modified site: pyrrolidone carboxyl end (Trp) #status experimental
F;8/Modified site: amidated carboxyl end (Trp) #status experimental
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zed pigment-containing cells.
C;Superfamily: adipokinetic hormone
C;Superfamily: amidated carboxyl end; blocked amino end; hormone; neuropeptide;
Keywords: amidated carboxyl end; blocked amino end; hormone; neuropeptide;
F;1/Modified site: pyrrolidone carboxylic acid (Gin) #status experimental
F;8/Modified site: amidated carboxyl end (Trp) #status experimental
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C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 09-Jul-2004
C;Accession: S10596
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3; Mismatches 0;
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A, McDecule type: protein
A, Residues: 1-8 < SCA>
A, Residues: 1-8 < SCA>
A, Residues: 1-8 < SCA>
A, Cross-references: UNIPROT: P04549
B, Witten, J.L.; Schaffer, M.H.; O'Shea, M.; Cook, J.C.; Hemling, M.E.; Rinehart Jr., K.,
Biochem. Biophys. Res. Commun. 124, 350-358, 1984
A, Title: Structures of two cockroach neuropeptides assigned by fast atom bombardment ma A, Reference number: A90118; MUID: 85046530; PMID: 6548628
A, Accession: A05170
A, Molecule type: protein
A, Residues: 'E', 2-8 < WIT>
C, Superfamily: adipokinetic hormone
C, Superfamily: adipokinetic hormone
F, Modified site: pyrrolidone carboxyl end; (Gln) #status experimental
F, Modified site: amidated carboxyl end (Trp) #status experimental
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A;Note: the amino-terminal residue forms pyrrolidone carboxylic acid; therefore, we hav S,Note: the amino-terminal residue forms cysuperfamily: adipokinate cormone
C;Superfamily: amidated carboxyl end; corpora cardiaca; hormone; neuropeptide; pyroglutami
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;8/Modified site: amidated carboxyl end (Trp) #status experimental
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R;Gaede, G.; Rosinski, G.
R;Gaede, G.; Rosinski, G.
A;Title: The primary structure of the hypertrehalosemic neuropeptide from tenebrionid b A,Reference number: A43976; MUID:90341081; PMID:2381871
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C;Superfamily: adipokinetic hormone
C;Keywords: amidated carboxyl end; corpora cardiaca; hormone; neuropeptide; pyroglutami
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
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C;Species: Gryllus bimaculatus (two-spotted cricket)
C;Species: Gryllus bimaculatus (two-spotted cricket)
C;Date: 30-Jun-1989 #sequence_revision 24-Oct-1997 #text_change 09-Jul-2004
C;Accession: A28004
R;Gaede, G;; Rinehart, K.L.
Biochem Biophys. Res. Commun. 149, 908-914, 1987
A;Title: Primary sequence analysis by fast atom bombardment mass spectrometry A;Reference number: A28004; MUID:88106553; PMID:3426616
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C;Species: Tenebrio molitor (yellow mealworm)
C;Date: 03-Feb-1993 #sequence_revision 03-Feb-1993 #text_change 09-Jul-2004
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   A; Reference number: A49823; MUID:84298179; PMID:6591205
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40.0%; Pred. No. 2.8e+05;
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A, Molecule type: protein
A, Residues: 1-8 <GAE>
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C;Species: Blatta orientalis (oriental cockroach)
C;Species: Blatta orientalis (oriental cockroach)
C;Date: 30-Jun-1992 #sequence_revision 24-Oct-1997 #text_change 09-Jul-2004
C;Accession: S08996
R;Gaade, G; Rinehart, K.L.
Biol. Chem: Hoppe-Seyler 371, 345-354, 1990
A;Title: Primary structures of hypertrehalosaemic neuropeptides isolated from the corpor entalis and of the stick insect Extatosoma tiaratum assigned by tandem fast atom bombard A;Reference number: S08995; MUD: 90253659; PMID: 2340112
A;Recession: S08996
A;Molecule type: protein
A;Ression: S08996
A;Molecule type: protein
A;Ression: Blatta Carboxylic acid; therefore, we have C;Superfamily: adipokinetic hormone; neuropeptide; pyroglutamic acid
C;Superfamily: adipokinetic hormone; neuropeptide; pyroglutamic acid
F;I/Modified site: pyrrolidone carboxylic acid (Trp) #status experimental
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N'Allernate names: neuropeptide M-II; periplanetin CC-1
C'Spatenate names: neuropeptide M-II; periplanetin CC-1
C'Spate: 03-May-1994 Herquence revision 03-May-1994 Hext_change 09-Jul-2004
C'Accession: B49823; A05170
C'Saccession: B4
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40.0%; Pred. No. 2.8e+05;
ive 3; Mismatches 0; Indels
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40.0%; Pred. No. 2.8e+05;
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C,Species: Periplaneta americana (American cockroach)

    oriental cockroach

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F;8/Modified site: amidated carboxyl end (Trp) #status experimental

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RESULT 40
B43976
hypertrehalosemic hormone - beetle (Zophobas rugipes)
C;Date: 03-Feb-1993 #sequence_revision 03-Feb-1993 #text_change 09-Jul-2004
C;Date: 03-Feb-1993 #sequence_revision 03-Feb-1993 #text_change 09-Jul-2004
C;Date: 03-Feb-1993 #sequence_revision 03-Feb-1993 #text_change 09-Jul-2004
C;Date: 03-Feb-1990
R;Gaede, G; Rosinski, G.
R;Gaede, G; Rosinski, G.
Peptides 11, 455-459, 1990
A;Title: The pyrimary structure of the hypertrehalosemic neuropeptide from tenebrionid be A;Reference number: A43976; MUID:90341081; PMID:2381871
A;Accession: B43976
A;Accession: B43976
A;Accession: B43976
A;Cross-references: UNIPROT:P25419
C;Superfamily: adiportinetic hormone
C;Keywords: amidated carboxyl end; corpora cardiaca; hormone; neuropeptide; pyroglutamic
C;Keywords: amidated carboxyl end; corpora cardiaca; hormone; neuropeptide; pyroglutamic
F;1/Modified site: pyrrolidone carboxyl end (Trp) #status experimental
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US-09-862-260A-19
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Publication No. US20030152580A1

GENERAL INFORMATION:
APPLICANT: SETTE, Alessandro
APPLICANT: SIDNEY, JOHNEY, JOHNEY, JOHNEY, SUDNEY, SUDNEY, SUDNEY, SOURCESPONDENCE ADDRESS:
CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend Khourie and Crew
STREET: One Market Plaza, Steuart Street Tower, 20th
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SIREET: FLOOR
CITY: San Francisco
STATE: California
COUNTRY: USA
ZIP: 94105
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IEM PC compatible
COMPUTER: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/344,824
FILING DATE: 23-NOV-1994
CLASSIFICATION NUMBER: US/08/344,824
FILING APPLICATION S14
RAPLICATION NUMBER: US/08/344,824
FILING APPLICATION NUMBER: US/08/344,824
FILING APPLICATION NUMBER: US/08/344,824
FILING AND ATE: 21-UL-1994
ATTONEY/AGENT INFORMATION:
                    SOFTWARE: Patentin Release #1.0, Version #1.25 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/424,550B FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: MANE: 
                                                                                                                   CLASSIFICATION: 435435
ATTORNEY/AGENT INPORMATION:
NAME: POREMESKI, PRISCILLA E.
REGISTRATION NUMBER: 33,207
REPERENCE/DOCKET NUMBER: 5527.PC.01
TELECOMMUNICATION INPORMATION:
TELEFAX: 708-938-2623
INFORMATION FOR SEQ ID NO: 252:
SEQUENCE CHARACTERISTICS:
LENGTH: 8 amino acids
          OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY: linear
MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                         TYPE: amino acid
TOPOLOGY: linear
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  Sequence 69, Appl
Sequence 71, Appl
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Sequence 75, Appl
Sequence 76, Appl
Sequence 77, Appl
Sequence 79, Appl
Sequence 81, Appl
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Sequence 82, Appl
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Sequence 91, Appl
Sequence 91, Appl
Sequence 92, Appl
Sequence 92, Appl
Sequence 93, Appl
Sequence 104, Appl
Sequence 106, Appl
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Sequence 131,
Sequence 132,
Sequence 134,
Sequence 136,
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Sequence 119,
Sequence 120,
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Sequence 128,
Sequence 129,
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US-08-424-550B-252
i Sequence 222, Application US/08424550B
i Sequence 222, Application No. US20020119447A1
i GENERAL INFORMATION:
APPLICANT: JOHN N. SIMONS
APPLICANT: GENGEG J. DAMGON
APPLICANT: GENGEG J. DAMGON
APPLICANT: TAMI J. PILOT-MATIAS
APPLICANT: TAMI J. PILOT-MATIAS
APPLICANT: TAMI J. PILOT-MATIAS
APPLICANT: TAMIAS P. LERAY
APPLICANT: TAMIAS P. LERAY
APPLICANT: THOMAS P. LERAY
APPLICANT: TAMES C. ERKER
APPLICANT: TAMES C. ERKER
APPLICANT: TAMES C. ERKER
APPLICANT: SHERI L. BUJAY
APPLICANT: SHERESS:
APPLICANT: SABOTT LABORATORIES D377/AP6D
STREET: 100 ABBOTT LABORATORIES
ADDRESSEE: ABBOTT PARK
STATE: IL
COUNTRY: USA
STATE: IL
COUNTRY: USA
STATE: IL
COUNTRY: USA
STATE: IL
MEDIUM TYPE: FIORPY disk
COMPUTER READABLE FORM:
MEDIUM TYPE: FIORPY disk
COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
US-11-045-477-69

US-11-045-477-71

US-11-045-477-73

US-11-045-477-75

US-11-045-477-75

US-11-045-477-76

US-11-045-477-79

US-11-045-477-81

US-11-045-477-81

US-11-045-477-82

US-11-045-477-89

US-11-045-477-95

US-11-045-477-95

US-11-045-477-90

US-11-045-477-100

US-11-045-477-100

US-11-045-477-100

US-11-045-477-105

US-11-045-477-105

US-11-045-477-105

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US-11-045-477-131
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Wed Oct 19 16:19:38 2005

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Sequence 13, Application US/09780070
Patent No. US20020009752A1
GENERAL INFORMATION:
APPLICANT: Burke, James
APPLICANT: Burke, James
APPLICANT: Strittmater, Warren
APPLICANT: Strittmater, Warren
TITLE OF INVENTION: COMPOUNDS THAT SELECTIVELY BIND TO EXPANDED POLYGLUTAMINE REPEAT
TITLE OF INVENTION: AND METHODS OF USE THEREOF
TITLE OF INVENTION: AND METHODS OF USE THEREOF
TITLE OF ILING DATE: 2001-02-09
CURRENT APPLICATION NUMBER: 66/189,781
PRIOR APPLICATION NUMBER: 66/189,781
PRIOR APPLICATION NUMBER: 66/189,781
NUMBER OF SEQ ID NOS: 40
SOFTWARE: PatentIn version 3.0
                                                                                                                                                                                                                                                                                         APPLICANT: Furet, Pascal TITLE OF INTERIOR OF PS3 and MDM2 TITLE OF INTENTION . Inhibitors of the Interaction of PS3 and MDM2 FILE REPERBUCE: 4-2093/A/PCT CURRENT APPLICATION NUMBER: US/09/214,371B CURRENT FILING DATE: 1999-03-26 PRIOR PPLICATION NUMBER: PCT/EP97/03549 PRIOR FILING DATE: 1997-07-04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURE: OTHER INFORMATION: Description of Artificial Sequence:peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; Score 23; DB 9; Length 8; 25.0%; Pred. No. 1.7e+06; ive 6; Mismatches 0; Indels
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6; Mismatches
                                                                                                                        APPLICANT: Bottger, Volker
APPLICANT: Bottger, Angelica
APPLICANT: Picksley, Stephen
APPLICANT: Chene, Patrick
APPLICANT: Hochkeppel, Heinz-Kurt
APPLICANT: Garcia-Echeverria, Carlos
APPLICANT: Furet, Parcal
                                               ; Sequence 16, Application US/09214371B
; Patent No. US2001001811A1
; GENERAL INFORMATION:
; APPLICANT: Lane, David
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; Sequence 83, Application US/09908322
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PatentIn Ver. 2.0
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Best Local Similarity 25.0°
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Matches 2, Conservative
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SOFTWARE: Patentin Ve
SEQ ID NO 16
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US-09-780-070-13
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US-09-908-322-83
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                                                                                                                                                                                                                                                      APPLICANT: Lane, David

APPLICANT: Bottger, Volker

APPLICANT: Bottger, Volker

APPLICANT: Bottger, Angelica

APPLICANT: Bottger, Angelica

APPLICANT: Bottger, Angelica

APPLICANT: Chene, Patrick

APPLICANT: Hochkeppel, Heinz-Kurt

APPLICANT: Garcia-Echeverria, Carlos

APPLICANT: Garcia-Echeverria, Carlos

APPLICANT: Alexanderia, Carlos

APPLICANT: Bascal

TITLE OF INVENTION: Inhibitors of the Interaction of PS3 and MDM2

CURRENT APPLICATION NUMBER: PS(09/214,371B)

CURRENT FILING DATE: 1999-03-26

PRIOR FILING DATE: 1999-03-26

PRIOR FILING DATE: 1999-07-04

NUMBER OF SEQ ID NOS: 83

SOFTWARE: Patentin Ver. 2.0

SEQ ID NO 10

TYPE: ---

TYPE: ---
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                                                                                                 Gaps
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LOCATION: (3)
OTHER INFORMATION: X = arginine, histidine, glutamic acid, cysteine, OTHER INFORMATION: serine, or preferably aspartic acid.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               X = glutamic acid, threonine, alanine,
phenylalanine or serine, preferably glutamic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OTHER INFORMATION: X = glycine, glutamine, threonine, alanine or OTHER INFORMATION: aspartic acid, preferably glycine.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE:
OTHER INFORMATION: Description of Artificial Sequence:peptide
NAME/KEY: VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OTHER INFORMATION: X = phenylalanine, glutamine or preferably OTHER INFORMATION: leucine.
                                                  Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 23; DB 9; Length 8; 100.0%; Pred. No. 1.7e+06; Live 0; Mismatches 0; Indels
                                                                                            0; Indels
                                               ; Score 23; DB 8;
Pred. No. 1.7e+06;
6; Mismatches 0;
                                               100.0%;
25.0%; P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Artificial Sequence
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Matches 8; Conservative
                                                                                            Conservative
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1 FPRIWLHL 8
                                                                                                                                            1 PXXXWXXX 8
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                                             Query Match
Best Local Similarity
Matches 2; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME/KEY: VARIANT
LOCATION: (4)
OTHER INFORMATION: X
OTHER INFORMATION: L
NAME/KEY: VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OTHER INFORMATION:
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY: VARIANT LOCATION: (7)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY: VARIANT
US-08-344-824-105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCATION: (8)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
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TITLE OF INVENTION: ANTIBODIES TO VERTEBRATE DELTA PROTEINS
AND FRAGMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
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                                                                                            ZIP: 10004
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette - 3.5 inch, 1.44 Mb storage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 8;
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25.0%; Pred. No. 1.7e+06;
tive 6; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 83, Application US/09783931
Publication No. US20030073620A1
GENERAL INFORMATION:
APPLICANT: ISh-Horowicz, David
Henrique, Domingos Manuel Pinto
Lewis, Julian Hart
Artavanis-Tsakonas, Spyridon
                                                                                                                                                                                                                                                      PRILICATION NUMBER: US/09/794,517
FILING DATE: 27-Feb-2001
CLASSIPICATION AND AUGUST
PRIOR APPLICATION DATA:
APPLICATION DATA: ADDITION APPLICATION NUMBER: 09/011,645
FILING DATE: AUGUST 18, 1995
APPLICATION NUMBER: PCT/US96/13363
FILING DATE: AUGUST 18, 1995
ATTORNEY/AGENT INFORMATION:
NAME: DELACIA RICHARD IN TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION 1425-7200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
ADDRESSEE: Pennie & Edmonds Lip
STREET: 1155 Avenue of the Americas
CITY: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: amino acid
STRANDEDNESS: «Unknown»
TOPOLOGY: linear
MOLECULE TYPE: peptide
HYPOTHETICAL: no
FRAGMENT TYPE: internal
                                                                                                                                                                COMPUTER: IBM compatible OPERATING SYSTEM: MS DOS SOFTWARE: Word Perfect CURRENT APPLICATION DATA:
       STREET: One Broadway
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEX: <UNKNOWN>
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES: 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2; Conservative
                          CITY: New York
STATE: NY
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COUNTRY: USA
                                                                         COUNTRY: US
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Matches 2; Conservat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORIGINAL SOURCE:
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US-09-783-931-83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE
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                                                                                                                         Gray, Grace
Gray, Grace
TITLE OF INVENTION: NUCLECTIDE AND PROTEIN SEQUENCES OF
VERTEBRATE DELTA GENE AND METHODS BASED THEREON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
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TITLE OF INVENTION: Heat Shock Protein-Based Vaccines and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 4, Application US/09794517
Publication No US20030021794A1
GENERAL INFORMATION:
APPLICANT: ADDA-Kettering Institute for Cancer Research ROTHMAN, James E.
HARTL, F. Ulrich
HOUGHTON, Alan
TARECHI, Yoshizumi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 8;
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                                                                    Henrique, Domingos Manuel Pinto
Lewis, Julian Hart
Artavanis-Tsakonas, Spyridon
                                                                                                                                                                                                                                                                                                                                                                                                                                       CUMPUTER: IDEACUCE
COMPUTER: IDEACUCE
COMPUTER: IDEACUCE
COMPUTER: IDEACUCE
COMPARE: FESTER: DOS
SOFTHARE: FESTER: DOS
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/908,322
FILING DATE: 17-011-2001
CLASSIFICATION: «Unknown»
PRIOR APPLICATION NUMBER: 08/981,392
FILING DATE: 22-DEC-1997
ATTORNEY/AGENT INFORMATION:
NAME: Miscrock, S. Les 1e
REGISTRATION NUMBER: 18,872
REFERENCE/DOCKET NUMBER: 7326-123
TELEFAX: 5611 PENNIE
INFORMATION E 212-790-9090
TELEFAX: 5611 PENNIE
INFORMATION FOR SEQ ID NO: 83:
SEQUENCE CHARACTERISTICS:
LENGTH: 8 ABILD ACIDS
CHARACTERISTICS:
LENGTH: 8 ABILD ACIDS
CHARACTERISTICS:
CHARACTERISTICS:
CHARACTERISTICS:
                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
ADDRESSEE: Pennie & Edmonds LLP
STREET: 1155 Avenue of the Americas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TOPOLOGY: unknown

MOLECULE TYPE: peptide

SEQUENCE DESCRIPTION: SEQ ID NO: 83:
US-09-908-322-83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Immunotherapies
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CORRESPONDENCE ADDRESS:
ADDRESSEE: Kenyon & Kenyon
                                              APPLICANT: Ish-Horowicz, David
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRANDEDNESS: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                          ZIP: 10036/2711
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 25.0
Patent No. US20020107194A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                         CITY: New York
                                                                                                                                                                                                                                                                                                                                                       COUNTRY: USA
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OTHER INFORMATION: heat shock protein binding motif
SEQUENCE DESCRIPTION: SEQ ID NO: 4:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Indels
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                APPLICATION NUMBER: 60/002,479
FILING DATE: August 18, 1995
APPLICATION NUMBER: 60/002,490
FILING DATE: August 18, 1995
APPLICATION NUMBER: PCT/US96/13363
FILING DATE: August 16, 1996
ATTORNEY/AGENT INFORMATION:
NAME: Delucia, Richard L.
REGISTRATION NUMBER: 28,839
REFERENCE/DOCKET NUMBER: 11746/1
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
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OPERATING SYSTEM: MS DOS
SOFTWARE: WORD Perfect
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/794,832
FILING DATE: 27-Feb-2001
CLASSIFICATION: 
    UNKNOWN>

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RADDRESSEE: Kenyon & Kenyon
STREET: One Broadway
CITY: New York
                                                                                                                                                                                                                                                                                                                                             TYPE: amino acid
STRANDEDNESS: <Unknown>
TOPOLGGY: linear
MOLECULE TYPE: peptide
HYPOTHETICAL: no
FRAGMENT TYPE: internal
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                   TELEFAX: (212) 425-5288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                     TELEX: <Unknown>
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 8
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COUNTRY: US
ZIP: 10004
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1 FWGLWPWE 8
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MEDIUM TYPE: Diskette - 3.5 inch, 1.44 Mb storage COMPUTER: IBM compatible COMPUTER: Wide Perfect COMPUTER: Word Perfect CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/794,529
FILING DATE: 77-Feb-2001
CLASSIFICATION: «UNKNOWN»
PRIOR APPLICATION LATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: Heat Shock Protein-Based Vaccines and Immunotherapies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 4, Application US/09794529
Publication No. US20030082197A1
GENERAL INFORMATION:
APPLICANT: Sloan-Kettering Institute for Cancer Research
ROTHMAN, James E.
HARTL, F. Ulrich
HOE, Mee H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 23; DB 10;
Pred. No. 1.7e+06;
                                                                                                                                                                                    PRIOR APPLICATION IDATA:
APPLICATION NUMBER: 08/981,392
FILING DATE: 12-DEC-1997
ATTORNEY/AGENT INFORMATION:
NAME: Antler, Adriane M.
REGISTRATION NUMBER: 32,605
REFECOMMUNICATION | INFORMATION:
TELECOMMUNICATION | INFORMATION:
TELEPHONE: 212-790-9090
                                                COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FASTSEQ Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/783,931
FILING DATE: 15-Feb-2001
CLASSIFICATION: <u >Unknown></u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             6; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/09/011,645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY: unknown
MOLECULE TYPE: peptide
SEQUENCE DESCRIPTION: SEQ ID NO: 83:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
ADDRESSEE: Kenyon & Kenyon
STREET: One Broadway
CITY: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HOUGHTON, Alan
TAKECHI, Yoshizumi
MAYHEW, Mark
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: amino acid
STRANDEDNESS: <Unknown>
              COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                 TELEFAX: 212 4869-8864
TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO: 83:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 8 amino acids
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25.0%; P
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Best Local Similarity 25.0
Matches 2; Conservative
ZIP: 10036/2711
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1 FGFTWPGT 8
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Sequence 144, Application US/10053520

| Bedilication No. US20303166530A1
| Publication No. US20303166530A1
| GENERAL INFORMATION:
| APPLICANT: Stohman, James E. APPLICANT: Hochman, James E. APPLICANT: Houghton, Alan
| APPLICANT: Houghton, Alan
| APPLICANT: Hartl, Ulrich
| APPLICANT: Hartl, Ulrich
| APPLICANT: Mayob, Yoichi
| APPLICANT: Mayob, Yoichi
| APPLICANT: March Volondate HEAT SHOCK PROTEIN-BINDING PEPTIDES
| FILE REFERENCE: 11746/46004
| CURRENT APPLICATION NUMBER: US/10/053,520
| FILE REPERENCE: 11746/46004
| CURRENT APPLICATION NUMBER: US/10/053,520
| PRIOR FILING DATE: 1997-10-31
| RIOR FILING DATE: 1997-10-31
| SOPTWARE: WordPerfect 8.0 for Windows SEQ ID NO 144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MAYHEW, Mark
TITLE OF INVENTION: Heat Shock Protein-Based Vaccines and
Immunotherapies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 4, Application US/10170713A
Publication No. US20030185842A1
GENERAL INFORMATION:
APPLICANT: Sloan-Kettering Institute for Cancer Research ROTHMAN, James B.
HARTL, F. Ulrich
HOG, Mee H.
HOG, Mee H.
HOG, Mee H.
HOKELLIV YOSHIZUM!
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COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette - 3.5 inch, 1.44 Mb storage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
100.0%; Score 23; DB 14;
Best Local Similarity 25.0%; Pred. No. 1.7e+06;
Matches 2; Conservative 6; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: IBM compatible
OPERATING SYSTEM: MS DOS
SOFTWARE: Word Perfect
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/170,713A
FILING DATE: 13-Jun-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; OTHER INFORMATION: peptide in m13 coliphage US-10-053-520-144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
ADDRESSEE: Kenyon & Kenyon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET: One Broadway
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQUENCES: 30
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1 FWGLWPWE 8
          1 FXXXWXXX 8
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1 FWGLWPWE 8
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US-10-170-713A-4
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; CURRENT APPLICATION NUMBER: US/10/052,578
; FRIOR APPLICATION NUMBER: 08/961,707
; PRIOR APPLICATION NUMBER: 08/961,707
; RIOR FILING DATE: 1997-10-31
; SOFTWARE: WordPerfect 8.0 for Windows
; SEQ ID NO: 144
LENGTH: 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
100.0%; Score 23; DB 10; Length 8;
Best Local Similarity 25.0%; Pred. No. 1.7e+06;
Matches 2; Conservative 6; Mismatches 0; Indels
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100.0%; Score 23; DB 14; Length 8;
Best Local Similarity 25.0%; Pred. No. 1.7e+06;
Matches 2; Conservative 6; Mismatches 0; Indels
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; Publication No. US20030134787A1
; GENERAL INFORMATION:
; APPLICANT: Sloan-Kettering Institute for Cancer Research
; APPLICANT: Rothman, James E.
; APPLICANT: Mayhew, Mark
FILING DATE: 13-Feb-1998
APPLICATION NUMBER: 60/002,479
FILING DATE: August 18, 1995
APPLICATION NUMBER: 60/002,490
FILING DATE: August 18, 1995
APPLICATION NUMBER: PCT/US96/13363
FILING DATE: August 16, 1996
                                                                                                                                                                                                  NAME: Delucia, Richard L.
REGISTRATION NUMBER: 28,839
REFERENCE/DOCKET NUMBER: 11746/1
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 425-7200
TELEFRA: (212) 425-7200
TELEFRA: (212) 425-5288
TELERA: «Unknown»
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: amino acid
STRANDEDNESS: <Unknown>
TOPOLOGY: linear
MOLECULE TYPE: peptide
HYPOTHETICAL: no
FRAGMENT TYPE: internal
ORIGINAL SOURCE:
                                                                                                                                                                                  ATTORNEY/AGENT INFORMATION
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: <Unknown>
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1 FWGLWPWE 8
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US-10-052-578-144
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Gaps

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Length 8; Indels

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APPLICANT: How, Mee H.
APPLICANT: How, Mee H.
APPLICANT: Houghton, Alan
APPLICANT: Houghton, Alan
APPLICANT: Hartl, Ulrich
APPLICANT: Ouerfelli, Ouathek
APPLICANT: Ouerfelli, Ouathek
TITLE OF INVENTION: COMJUGATE HEAT SHOCK PROTEIN-BINDING PEPTIDES
TITLE OF INVENTION: COMJUGATE HEAT SHOCK PROTEIN-BINDING PEPTIDES
TITLE OF INVENTION NUMBER: US/10/053,498B
CURRENT APPLICATION NUMBER: US/10/053,498B
CURRENT FILING DATE: 2002-01-17
PRIOR PILING DATE: 1997-10-31
NUMBER OF SEQ ID NOS: 321
SOFTWARE: WordPerfect 8.0 for Windows
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OTHER INFORMATION: heat shock protein binding motif SEQUENCE DESCRIPTION: SEQ ID NO: 4:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 8;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 23; DB 14; 25.0%; Pred. No. 1.7e+06;
                                                                                                                                                                                                                                                                                     NAME: Casson, Lawrence P.
REGISTRATION NUMBER: 46,606
REFERENCE/DOCKET NUMBER: 11746/461031
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 425-7200
TELEFAX: (212) 425-5288
                                                  FILING DATE: August 18, 1995
APPLICATION NUMBER: 60/002,490
FILING DATE: August 18, 1995
APPLICATION NUMBER: PCT/US96/13363
FILING DATE: August 16, 1996
APPLICATION NUMBER: 09/011,645
FILING DATE: Pebruary 13, 1998
APPLICATION NUMBER: 09/636,295
FILING DATE: August 10, 2000
ATTORNEY/AGENT INFORMATION:
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6; Mismatches
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                                    APPLICATION NUMBER: 60/002,479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 144, Application US/10053498B Publication No. US20030194409A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: amino acid
STRANDEDNESS: <Unknown>
TOPOLOGY: linear
MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                            TELEX: «Unknown»
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
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ORGANISM: Artificial Sequence
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              PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FRAGMENT TYPE: internal ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 25.v.
2, Conservative
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US-10-053-498B-144
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 4, Application US/10171734
Sequence 4, Application US/10171734
Publication No. US20030185843A1
GENERAL INFORMATION:
ROTHWAN, James E.
HARTL, F. Ulrich
HOE, Mee H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OTHER INFORMATION: heat shock protein binding motif SEQUENCE DESCRIPTION: SEQ ID NO: 4:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDIUM TYPE: Diskette - 3.5 inch, 1.44 Mb storage COMPUTER: IBM compatible OPERATING SYSTEM: MS DOS SOFTWARE: Word Perfect CURRENT APPLICATION DATA: APPLICATION NUMBER: US/10/171,734 FILING DATE: 14-Jan-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 25.0%; Pred. No. 1.7e+06;
Matches 2; Conservative 6; Mismatches 0; Indels
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 09/011,645
FILING DATE: FEBRUARY 13, 1998
APPLICATION NUMBER: 60/002,479
FILING DATE: August 18, 1995
APPLICATION NUMBER: 60/002,490
FILING DATE: August 18, 1995
APPLICATION NUMBER: PCT/US96/13363
FILING DATE: August 18, 1995
APPLICATION NUMBER: PCT/US96/13363
                                                                                                                                                                                                                                       NAME: Casson, Lawrence P.
REGISTRATION NUMBER: 46,606
REFFERENCE/DOCKET NUMBER: 11746/461011
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 425-7200
TELEFAX: (212) 425-5288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Immunotherapies
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ADDRESSE: Kenyon & Kenyon STRET: One Broadway
CITY: New York
STATE: NY
COUNTRY: US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HOUGHTON, Alan
TAKECHI, Yoshizumi
MAYHEW, Mark
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRANDEDNESS: <Unknown>
TOPOLOGY: linear
MOLECULE TYPE: peptide
                                                                                                                                                                                                               ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                    INFORMATION FOR SEQ ID NO: 4:
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FRAGMENT TYPE: internal
ORIGINAL SOURCE:
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COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                              TELEX: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: amino acid
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1 FWGLWPWE 8
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Gaps

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APPLICANT: Fikes, John
APPLICANT: Sette, Alessandro
APPLICANT: Sette, John
APPLICANT: Sette, John
APPLICANT: Staney, John
APPLICANT: Staney, John
APPLICANT: Staney, John
APPLICANT: Staney, Robert
APPLICANT: Chesnut, Robert
APPLICANT: Chesnut, Robert
APPLICANT: Chesnut, Robert
APPLICANT: Cells, Esteban
APPLICANT: Cells, Esteban
APPLICANT: Cells, Esteban
APPLICANT: MUNERR: US/10/149,138
TITLE OF INVENTION: HERZ/neu Using Peptide and Nucleic Acid Compositions
FILE REFERENCE: 2000-0140001
CURRENT APPLICATION NUMBER: US/10/149,138
CURRENT FILING DATE: 2000-12-11
FRIOR APPLICATION NUMBER: US 09/458,299
FRIOR FILING DATE: 1999-12-11
FRIOR FILING DATE: 1999-12-11
MUMBER OF SEQ ID NOS: 4641
SOFTWARE: PatentIn version 3.1
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Best Local Similarity 25.0%; Pred. No. 1.7e+06;
Matches 2; Conservative 6; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    , OTHER INFORMATION: Artificial Peptide US-10-149-138-4613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; Sequence 4614, Application US/10149138; Publication No. US20040018971A1; GENERAL INFORMATION:
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ORGANISM: Artificial Sequence
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ORGANISM: Artificial Sequence
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1 FPIKWMAI 8
1 FXXXWXXX 8
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1 FPRIWLHG 8
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US-10-149-138-4613
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; Publication No. US20040001845A1
; GENERAL INFORMATION:
; APPLICANT: Alffeld, Marcus
; APPLICANT: Yu, Xu
; APPLICANT: Walker, Bruce
; APPLICANT: Addo, Marylan
; TITLE OF INVENTION: Cytocoxic T-Cell Epitopes of HIV-1 Virus
; FILE REFERENCE: 24028-010
; CURRENT FILING DATE: 2003-05-20
; PRIOR APPLICATION NUMBER: 60/382,120
; PRIOR FILING DATE: 2002-05-20
; NUMBER OF SEQ ID NOS: 77
; SOFTWARE: Patentin Ver. 2.1
; SOFTWARE: Patentin Ver. 2.1
        Score 23; DB 14; Length 8;
Pred. No. 1.7e+06;
6; Mismatches 0; Indels
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100.0%; Score 23; DB 15; Length 8;
Best Local Similarity 25.0%; Pred. No. 1.7e+06;
Matches 2; Conservative 6; Mismatches 0; Indels
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100.0%; Score 23; DB 15; Length 8;
Best Local Similarity 25.0%; Pred. No. 1.7e+06;
Matches 2; Conservative 6; Mismatches 0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ) OTHER INFORMATION: Synthetic Peptide US-10-413-160-13
           Query Match
Best Local Similarity 25.0%; Matches 2; Conservative 6
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1 FWGLWPWE 8
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1 FIGPWWKW 8
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APPLICANT: Wieland, Felix
APPLICANT: Wieland, Felix
APPLICANT: Wieland, Felix
APPLICANT: Hartl, Franz-Ulrich
TITLE OF INVENTION: Modulation of Heat-Shock-Protein-Based Immunotherapies
FILE REPERENCE: 11390/46101
CURRENT PILING DATE: 2002-12-23
FRIOR PILING DATE: 2001-12-26
FRIOR PILING DATE: 2001-12-26
FRIOR PLING DATE: 2001-12-26
FRIOR PLING DATE: 2001-12-26
FRIOR PLING DATE: 2001-12-26
FRIOR PLING DATE: 2002-04-12
FRIOR PLING DATE: 2002-04-12
FRIOR PLING DATE: 2002-04-12
FRIOR FILING DATE: 2002-04-12
FRIOR FILING DATE: 2002-09-28
FRIOR PLING DATE: 2002-09-28
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                               APPLICANT: Frank Landsberger
TITLE OF INVENTION: HEAT SHOCK PROTEIN-BASED ANTIVIRAL
TITLE OF INVENTION: VACCINES
FILE REFERENCE: 11390/46301
CURRENT APPLICATION NUMBER: US/10/258,146A
CURRENT FILING DATE: 2003-09-05
PRIOR PILING DATE: 2001-04-17
PRIOR PELICATION NUMBER: 60/197,462
PRIOR PILING DATE: 2000-04-17
PRIOR PILING DATE: 2000-04-17
PRIOR PILING DATE: 2000-04-17
SPIOR PILING DATE: 2000-04-17
NUMBER OF SEQ ID NOS: 180
SOFTWARE: FASTSEQ for Windows Version 3.0
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25.0%; Pred. No. 1.7e+06;
ive 6; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; Score 23; DB 15;
Pred. No. 1.7e+06;
6; Mismatches 0;
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                             Sequence 2, Application US/10258146A; Publication No. US20040052812A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-328-953-11
; Sequence 11, Application US/10328953
; Publication No. US/20040071656A1
; GENERAL INFORMATION:
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25.0%; 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2; Conservative
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1 FWGLWPWE 8
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Best Local Similarity
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                                                                                                            APPLICANT: Mee Hoe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: PRT
ORGANISM: human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-258-146A-2
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                                                                                   Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Score 23; DB 15; Length 8; 25.0%; Pred. No. 1.7e+06;
                                                                                                                                    0; Indels
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                                                                              100.0%; Score 23; DB 15; 25.0%; Pred. No. 1.7e+06; ative 6; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Rothman, James
APPLICANT: Mayhew, Mark
APPLICANT: Mosymew, Mark
APPLICANT: Hoo, Mark
TITLE OF INVENTION: JAVELINIZATION OF PROTEINS
FILE REFERENCE: 11146/46276
CURRENT APPLICATION NUMBER: US/10/258,147
CURRENT FILING DATE: 2002-10-17
PRIOR PLING DATE: 2000-04-17
NUMBER OF SEQ ID NOS: 47
SOFTWARE: FASELSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 39, Application US/10387957
Publication No. US20040052809A1
GENERAL INFORMATION:
TITLE OF INVENTION: Vaccine
FILE REFERENCE: B45284
CURRENT APPLICATION NUMBER: US/10/387,957
CURRENT FILING DATE: 2003-03-13
NUMBER OF SEQ 1D NOS: 47
SOFTWARE: FastSEQ for Windows Version 4.0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   , OTHER INFORMATION: insert in M13 coliphage US-10-258-147-8
; OTHER INFORMATION: Arrificial Peptide US-10-149-138-4614
                                                                                                                                                                                                                                                                                                                                                                  Sequence 8, Application US/10258147
Publication No. US20040043419A1
GENERAL INFORMATION:
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ORGANISM: Aritifical Sequence
                                                                         Query Match
Best Local Similarity 25.0°
Matches 2; Conservative
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Best Local Similarity 25.0
Matches 2; Conservative
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1 FSEFWDLD 8
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1 FPIKWMAL 8
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Best Local Similarity
Matches 2; Conserv
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1 FWGLWPWE
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LENGTH: 8
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RESULT 24

RESULT 22

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ORGANISM: Artificial Sequence
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US-10-367-593-185
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   Sequence 4, Application US/10367580

publication No. US20040071720A1

GENERAL INPORMATION:

APPLICANT: Nothman, James E.

APPLICANT: Hartl, F. Ulrich

APPLICANT: Hartl, Yoshizumi

APPLICANT: Takechi, Yoshizumi

APPLICANT: Mayhew, Mark

ITILE OF INVENTY MARK

FILE OF INVENTY ON Heat Shock Protein-Based Vaccines and Immunotherapies

FILE REFERENCE: 11746/461061

CURRENT FILING DATE: 2003-02-14

PRIOR APPLICATION NUMBER: US 09/011,645

PRIOR PLING DATE: 1996-08-13

PRIOR PLING DATE: 1996-08-13

PRIOR PLING DATE: 1995-08-18

SEQ ID NOS: 349

LENGTHER WELLING DATE: Windows

SEQ ID NO 4

LENGTH: 8
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APPLICANT: Hartl, F. Ulrich
APPLICANT: Houghton, Alan
APPLICANT: Houghton, Alan
APPLICANT: Takechi, Yoshizumi
APPLICANT: Takechi, Yoshizumi
APPLICANT: Takechi, Yoshizumi
APPLICANT: Maynew, Mark
TITLE OF INVENTION: Heat Shock Protein-Based Vaccines and Immunotherapies
FILE REFERENCE: 11746/461061
CURRENT PAPLICATION NUMBER: US/10/367,580
CURRENT PILING DATE: 2003-02-14
FRIOR APPLICATION NUMBER: US 09/794,832
FRIOR APPLICATION NUMBER: US 09/794,832
FRIOR PELING DATE: 1996-08-16
FRIOR FILING DATE: 1996-08-16
FRIOR FILING DATE: 1996-08-16
FRIOR RELING DATE: 1996-08-16
FRIOR APPLICATION NUMBER: US 60/002,479
FRIOR APPLICATION NUMBER: US 60/002,479
FRIOR FILING DATE: 1995-08-18
FRIOR FILING DATE: 1995-08-18
FRIOR FILING DATE: 1995-08-18
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Best Local Similarity 25.0%; Pred. No. 1.7e+06;
Matches 2; Conservative 6; Mismatches 0; Indels
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SOFTWARE: WordPerfect 8.0 for Windows
SEQ ID NO 185
LENCTH: 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 185, Application US/10367580 Publication No. US20040071720A1 GENERAL INFORMATION:
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1 FWGLWPWE 8
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Publication No. US20040071721A1
GENERAL INFORMATION:
APPLICANT: Rothman, James E.
APPLICANT: How, Mee H.
APPLICANT: Howlton, Alan
APPLICANT: Takechi, Yoshizumi
APPLICANT: Mayhew, Mark
TITLE OF INVENTION: Heat Shock Protein-Based Vaccines and Immunotherapies
TITLE OF INVENTION WHERE: US/10/367,593
CURRENT APPLICATION NUMBER: US/10/367,593
CURRENT FILING DATE: 1998-02-14
PRIOR FILING DATE: 1998-02-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Rothman, James E.
APPLICANT: Hartl, F. Ulrich
APPLICANT: Hoe, Mee H.
APPLICANT: Hoe, Mee H.
APPLICANT: Takechi, Yoshizumi
APPLICANT: Takechi, Yoshizumi
APPLICANT: Mayhew, Mark
TITLE OF INVENTION: Heat Shock Protein-Based Vaccines and Immunotherapies
FILE REPERENCE: 1174/461012
CURRENT APPLICATION NUMBER: US/10/367,593
CURRENT PILING DATE: 2003-02-14
                                                                                                                                             Gaps
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                                                                                                                                             0; Indels
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                                                                               Query Match
Best Local Similarity 25.0%; Pred. No. 1.7e+06;
Matches 2; Conservative 6; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
100.0%; Score 23; DB 15;
Best Local Similarity 25.0%; Pred. No. 1.7e+06;
Matches 2; Conservative 6; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT FILING DATE: 2003-02-14
PRIOR APPLICATION NUMBER: US 09/011,645
PRIOR PILING DATE: 1998-02-13
PRIOR APPLICATION NUMBER: PCT/US96/13363
PRIOR PILING DATE: 1996-08-16
PRIOR PLING DATE: 1995-08-18
PRIOR PLING DATE: 1995-08-18
PRIOR APPLICATION NUMBER: US 60/002,479
PRIOR PILING DATE: 1995-08-18
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SOFTWARE: WordPerfect 8.0 for Windows
SEQ ID NO 4
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CTHER INFORMATION: synthetic peptide US-10-367-580-185
                                                                                                                                                                                                                                                                                                                                                                                                 ; Sequence 4, Application US/10367593; Publication No. US20040071721A1; GENERAL INFORMATION:
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                                                                                                                                                                                                     1 FXXXWXXX 8
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1 FWGLWPWE 8
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SEQ ID NO 4
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APPLICANT: Hartl, F. Ulrich
APPLICANT: Hoe, Mee H. |
APPLICANT: Hoe, Mee H. |
APPLICANT: Houghton, Alan
APPLICANT: Takechi, Yoshizumi
APPLICANT: Takechi, Yoshizumi
APPLICANT: Mayhew, Mark
ITILE OF INVENTION: Heat Shock Protein-Based Vaccines and Immunotherapies
ITILE REFERENCE: 11746/461041
CURRENT APPLICATION NUMBER: US 99/680,806
FRIOR PAPLICATION NUMBER: US 99/680,806
FRIOR PAPLICATION NUMBER: US 09/011,645
FRIOR APPLICATION NUMBER: US 09/011,645
FRIOR APPLICATION NUMBER: US 60/002,490
FRIOR APPLICATION NUMBER: US 60/002,490
FRIOR PAPLICATION NUMBER: US 60/002,490
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Best Local Similarity 25.0%; Pred. No. 1.7e+06;
Matches 2; Conservative 6; Mismatches 0;
PRIOR APPLICATION NUMBER: PCT/US96/13363
PRIOR FILING DATE: 1996-08-16
PRIOR FILING DATE: 1995-08-18
PRIOR FILING DATE: 1995-08-18
PRIOR APPLICATION NUMBER: US 60/002,479
PRIOR APPLICATION NUMBER: US 60/002,479
NUMBER OF SEQ ID NOS: 349
SOFTWARE: WordPerfect 8.0 for Windows
ELENGTH: 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; OTHER INFORMATION: Synthetic peptide US-10-367-593-185
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18-10-36-594-185
Sequence 185, Application US/10367594
Publication No. US20040071722A1
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Publication No. US20040071722A1
GENERAL INFORMATION:
APPLICANT: Rothman, James E.
APPLICANT: Hartl, F. Ulrich
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Artificial Sequence
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Best Local Similarity 25.09
Matches 2; Conservative
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1 FWFPWDRS 8
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1 FWGLWPWE 8
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APPLICANT: Houghton, Alan
APPLICANT: Takechi, Yoshizumi
APPLICANT: Takechi, Yoshizumi
APPLICANT: Takechi, Yoshizumi
APPLICANT: Mayhew, Mark
ITLE OF INTENTION: Heat Shock Protein-Based Vaccines and Immunotherapies
ITLE OF INTENTION: Hoat Shock Protein-Based Vaccines and Immunotherapies
ITLE OF INTENTION: 11746/461011
CURRENT APPLICATION NUMBER: US/10/367,594
CURRENT FILING DATE: 2000-10-0.14
FRIOR PPLING DATE: 2000-10-0.13
FRIOR PPLING DATE: 1998-0.2-13
FRIOR APPLICATION NUMBER: US 60/002,490
FRIOR APPLICATION NUMBER: US 60/002,479
FRIOR PILING DATE: 1995-08-18
FRIOR PILING DATE: 1995-08-18
FRIOR PILING DATE: 1995-08-18
FRIOR PILING DATE: 1995-08-18
FRIOR FILING DATE: 1995-08-18
FRIOR FRI
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APPLICANT: Harl, F. Ulrich
APPLICANT: Herl, F. Ulrich
APPLICANT: Houghton, Alan
APPLICANT: Takechi, Yoshizumi
APPLICANT: Mayhew, Mark
TITLE OF INVENTION: Heat Shock Protein-Based Vaccines and Immunotherapies
FILE REPRENCE: 11746/461032
CURRENT APPLICATION NUMBER: US/10/367,654
CURRENT PILING DATE: 2003-02-14
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Pred. No. 1.7e+06;
6; Mismatches 0;
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PRIOR APPLICATION NUMBER: US 10/11/734
PRIOR PILING DATE: 2002-06-13
PRIOR PELING DATE: 2002-06-13
PRIOR PELING DATE: 2000-08-10
PRIOR PELING DATE: 1998-02-13
PRIOR PELING DATE: 1998-02-13
PRIOR APPLICATION NUMBER: US 60/002,490
PRIOR PILING DATE: 1996-08-16
PRIOR PELING DATE: 1996-08-18
PRIOR APPLICATION NUMBER: US 60/002,490
PRIOR APPLICATION NUMBER: US 60/002,490
PRIOR PILING DATE: 1996-08-18
PRIOR PILING DATE: 1996-08-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; OTHER INFORMATION: synthetic peptide US-10-367-594-185
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SOFTWARE: WordPerfect 8.0 for Windows
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25.0%; F
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Best Local Similarity 25.0
Matches 2; Conservative
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APPLICANT: Rothman, James B.
APPLICANT: Harl, F. Ulrich
APPLICANT: Harl, F. Ulrich
APPLICANT: How, Mee H.
APPLICANT: How, Mee H.
APPLICANT: How, Mee H.
APPLICANT: How, Mee H.
APPLICANT: Takechi, Yoshizumi
APPLICANT: Takechi, Yoshizumi
APPLICANT: Mayhew, Mark
FILE REFERENCE: 1136/461051
CURRENT APPLICATION NUMBER: US/10/367,658
CURRENT FILING DATE: 2003-02-14
PRIOR PILING DATE: 2001-02-27
PRIOR PILING DATE: 1998-02-13
PRIOR APPLICATION NUMBER: US 09/794,529
PRIOR APPLICATION NUMBER: US 09/794,529
PRIOR PILING DATE: 1996-08-16
PRIOR PILING DATE: 1996-08-16
PRIOR FILING DATE: 1995-08-16
PRIOR FILING DATE: 1995-08-16
PRIOR FILING DATE: 1995-08-16
PRIOR FILING DATE: 1995-08-16
PRIOR FILING DATE: 1995-08-18
PRIOR FILING DATE: 1995-08-18
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
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CURRENT FILING DATE: 2003-02-14

PRIOR APPLICATION NUMBER: US 09/794,529

PRIOR FILING DATE: 2001-02-7

PRIOR FILING DATE: 100-02-7

PRIOR FILING DATE: 1998-02-13

PRIOR APPLICATION NUMBER: PCT/US96/13363

PRIOR FILING DATE: 1996-08-16

PRIOR FILING DATE: 1995-08-18

PRIOR FILING DATE: 1995-08-18

PRIOR FILING DATE: 1995-08-18

PRIOR FILING DATE: 1995-08-18

NUMBER OF SEQ ID NOS: 349

SEQ ID NO 4

LENGTHER WARDERFECT 8.0 for Windows

SEQ ID NO 4

LENGTH: 8
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SOFTWARE: WordPerfect 8.0 for Windows
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 185, Application US/10367658; Publication No. US20040071724A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                       TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Artificial Sequence
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Best Local Similarity 25.0
Matches 2; Conservative
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1 FWFPWDRS 8
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US-10-367-654-185

Sequence 185, Application US/10367654

Publication No. US20040071723A1

GENBRAI INFORMATION:
APPLICANT: Hartl. F. Ulrich
APPLICANT: Rothman, James E.
APPLICANT: Houghton, Alan
APPLICANT: Houghton, Alan
APPLICANT: Hawblew, Mark
APPLICANT: Hawblew, Mark
APPLICANT: Mayhaw, Mark
ITILE OF INVENTION: Heat US/10/367,654
CURRENT APPLICATION WHOBER: US/10/367,654
CURRENT APPLICATION NUMBER: US 10/171,734
PRIOR APPLICATION NUMBER: US 09/613
PRIOR PILING DATE: 2002-06-13
PRIOR PPLING DATE: 1998-02-13
PRIOR APPLICATION NUMBER: US 09/011,645
PRIOR PLING DATE: 1998-02-13
PRIOR PLING DATE: 1996-08-10

PRIOR PLING DATE: 1996-08-18

PRIOR PLING DATE: 1996-08-18

PRIOR PLING DATE: 1996-08-18

NUMBER OF SEQ ID NOS: 349

NUMBER OF SEQ ID NOS: 349

NUMBER OF SEQ ID NOS: 349

SECTION OF 185

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Publication No. US20040071724A1
GENERAL INFORMATION,
GENERAL INFORMATION,
APPLICANT: Hartl, F. Ulrich
APPLICANT: How, Mee H.
APPLICANT: How, Walk
APPLICANT: Machicon, Alan
APPLICANT: Maybew, Mark
APPLICANT: Walk
APPLICANT: Walk
APPLICATION UMBER: US/10/367,658
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                                                                                                             Query Match
Best Local Similarity 25.0%; Pred. No. 1.7e+06;
Matches 2; Conservative 6; Mismatches 0; Indels
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               // FEATURE:
// OTHER INFORMATION: synthetic peptide
US-10-367-654-4
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1 FWFPWDRS 8
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1 FWGLWPWE 8
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Best Local Similarity
Matches 2; Conserv
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US-10-367-658-4
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TYPE: PRT
ORGANISM: Artificial Sequence
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Best Local Similarity 25.0%;
Matches 2; Conservative
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Best Local Similarity 25.0
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; ORGANISM: Homo sapiens
US-10-387-934-39
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1 FSEFWDLD 8
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US-10-258-144-37
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                                                                                                            SUBJECTANT INFORMATION:

APPLICANT: Hartl, F. Ulrich
APPLICANT: Hartl, F. Ulrich
APPLICANT: Hartl, F. Ulrich
APPLICANT: Houghton, Alan
APPLICANT: Houghton, Alan
APPLICANT: Takechi, Yoshizumi
APPLICANT: Takechi, Yoshizumi
APPLICANT: Takechi, Yoshizumi
APPLICANT: Maybew, Mark
TITLE OF INVENTION: Heat Shock Protein-Based Vaccines and Immunotherapies
FILE REFERENCE: 11746/461075.
CURRENT APPLICATION NUMBER: US 09/794,517
PRIOR APPLICATION NUMBER: US 09/794,517
PRIOR PILING DATE: 2001-02-13
PRIOR FILING DATE: 1996-08-16
PRIOR PILING DATE: 1996-08-16
PRIOR PILING DATE: 1996-08-16
PRIOR APPLICATION NUMBER: US 60/002,490
PRIOR FILING DATE: 1995-08-18
PRIOR FILING DATE: 1995-08-18
PRIOR FILING DATE: 1995-08-18
PRIOR FILING DATE: 1995-08-18
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APPLICANT: Hartl, F. Ulrich
APPLICANT: Hartl, F. Ulrich
APPLICANT: Hoo, Mee H.
APPLICANT: Hooghcon, Alan
APPLICANT: Takechi, Yeshizumi
APPLICANT: Takechi, Yeshizumi
APPLICANT: Mayhew, Mark
ITILE OF INVENTION: Heat Shock Protein-Based Vaccines and Immunotherapies
FILE REFERENCE: 11746/461072
CURRENT APPLICATION NUMBER: US/10/367,668
CURRENT APPLICATION NUMBER: US 09/794,517
PRIOR PILING DATE: 2003-02-14
PRIOR PILING DATE: 1996-02-13
PRIOR PILING DATE: 1996-08-16
PRIOR FILING DATE: 1996-08-16
PRIOR FILING DATE: 1995-08-16
PRIOR APPLICATION NUMBER: US 60/002,490
PRIOR APPLICATION NUMBER: US 60/002,479
PRIOR PILING DATE: 1995-08-18
NUMBER OF SEQ ID NOS: 349
SEQ ID NO 185
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SOFTWARE: WordPerfect 8.0 for Windows
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Publication No. US20040071725A1
GENERAL INFORMATION:
                                            Sequence 4, Application US/10367668
Publication No. US20040071725A1
GENERAL INFORMATION:
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1 FWGLWPWE 8
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APPLICANT: Houghton, Alan
APPLICANT: Livingston, Phil
APPLICANT: Livingston, Phil
APPLICANT: Al-Awqati, Qais
APPLICANT: Al-Awqati, Qais
APPLICANT: Mayhew, Mark
APPLICANT: Hoe, Mee
TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR HEAT SHOCK
TITLE OF INVENTION: PROTEIN MEDIATED IMMUNOTHERAPY OF MELANOMA
FILE REPERENCE: 11746 446401
CURRENT FILING DATE: 2002-10-17
CURRENT FILING DATE: 2002-10-17
PRIOR FILING DATE: 2000-04-17
NUMBER OF SEQ ID NOS: 502
SOFTWARE: PSSESSEQ for Windows Version 3.0
SEQ ID NO 37
LENGTH: 8
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Pred. No. 1.7e+06;
6; Mismatches 0;
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APPLICANT: Monteyne, Philippe
TITLE OF INVENTION: Vaccine
FILE REFERENCE: VB60137
CURRENT PELLICATION NUMBER: US/10/387,934
CURRENT PILING DATE: 2003-03-13
PRIOR APPLICATION NUMBER: PCT/EP02/09650
PRIOR APPLICATION NUMBER: PCT/EP02/09650
PRIOR FILING DATE: 2002-08-29
NUMBER OF SEQ ID NOS: 47
SOFTWARE: PSECSEQ for Windows Version 4.0
SEQ ID NO 39
; FEATURE:
; OTHER INFORMATION: synthetic peptide
US-10-367-668-185
                                                                                                                                                                                                                                                                                                                                          US-10-387-934-39
Sequence 39, Application US/10387934
Publication No. US20040091496A1
GENERAL INFORMATION:
APPLICANT: Mettens, Pascal
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25.0%; I
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Search completed: October 19, 2005, 15:50:59 Job time : 103.118 secs
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100.0%; Score 23; DB 16; Length 8; Best Local Similarity 25.0%; Pred. No. 1.7e+06; Matches 2; Conservative 6; Mismatches 0; Indels
                      Indels
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GENERAL INFORMATION:
GENERAL INFORMATION:
TITLE OF INVENTION: Epitopes of Hepatitis C Virus
FILE REFERENCE: 24020-011
CURRENT APPLICATION NUMBER: US/10/440,390
CURRENT PILING DATE: 2003-05-16
PRIOR APPLICATION NUMBER: 60/381,273
PRIOR APPLICATION NUMBER: 60/381,273
PRIOR FILING DATE: 2002-05-15
NUMBER OF SEQ ID NOS: 100
SOFTWARE: PatentIn Ver. 2.1
                                                                                                                                                                                       US-10-440-390-52
; Sequence 52, Application US/10440390
; Publication No. US20040105868A1
; GENERAL INFORMATION:
; APPLICANT: Lauer et al.
; TITLE OF INVENITON: Epitopes of Hepatitis C Virus
; FILE REFERENCE: 24028-01
; CURRENT APPLICATION NUMBER: US/10/440,390
; CURRENT PILING DATE: 2003-05-16
; PRIOR APPLICATION NUMBER: 60/381,273
; NUMBER OF SEQ ID NOS: 100
; SOFTWARE: Patentin Ver. 2.1
; SEQ ID NO 52
25.0%; Pred. No. 1.7e+06; ative 6; Mismatches 0;
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Publication No. US20040121946A9
GENERAL INFORMATION:
APPLICANT: Fikes, John
APPLICANT: Sette, Alessandro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: PRT; ORGANISM: Hepatitis C virus US-10-440-390-89
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Best Local Similarity 25.0
Matches 2, Conservative
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APPLICANT: Southwood, Scott
APPLICANT: Chesnut, Robert
APPLICANT: Clais, Esteban
APPLICANT: Celis, Esteban
APPLICANT: Reogh, Elissa
TITLE OF INVENTION: Inducing Cellular Immune Responses to
TITLE OF INVENTION: HER2/neu Using Peptide and Nucleic Acid Compositions
FILE REPERENCE: 2000-0140001
CURRENT APPLICATION NUMBER: US/10/149,138
CURRENT FILING DATE: 2002-06-10
FRIOR APPLICATION NUMBER: US/08/33591
FRIOR APPLICATION NUMBER: US 09/458,299
FRIOR PILING DATE: 1999-12-11
NUMBER OF SEQ ID NOS: 4641
SOFTWARE: Patentin version 3.1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OTHER INFORMATION: Artificial Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: PRT
ORGANISM: Artificial Sequence
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AMEZTOSI AMEZTOSI </td> <td> 10.00 1.0 2.000 2.000 1.0 2.000 2.</td> <td> March Marc</td> <td> MARCOLLAN MARC</td> <td> MANATORN MANATORN</td> <td> March Marc</td> <td> MARCOLLAN MARC</td> <td> MAY 1251 MAY 1251</td> <td> 10</td> <td> MANAGESTA MANA</td> <td> 10</td> <td> March Marc</td> <td> March Marc</td> <td> March Marc</td> | 100.0 13 2 AAW22121 Padre (pa Awe7036 902 23 100.0 13 7 ADB36944 Ade37005 100.0 13 2 AAW67036 Polioviru 903 23 100.0 13 7 ADB10455 Add10455 100.0 13 2 AAX21821 Aay25551 Human MHC 904 23 100.0 13 7 ADB10455 Add10455 100.0 13 2 AAX25551 Human MHC 906 23 100.0 13 7 ADB157984 Add157986 Add15786 Add15786 Add15786 Add15786 | 13 2 AAW22121 Padre (pa Aaw27121 Padre (pa Aaw27021 Padre (pa Aaw27021 Padre (pa Aaw27021 Padre (pa Aay2121) Padre (pa Aay27021 Padre (pa Aay2121) Padre (pa Aay2121 Padre (pa Aay2121) Padre (pa Aay12121) Padre (pa Aay121211) Padre (pa Aay12121) | 13 2 AAW22121 Padre (pa Aaw27121 Padre (pa Aaw27021 Aaw27121 Padre (pa Aaw27021 Aaw27121 Padre (pa Aaw27021 Aay2121 Aay2121 Aad27065 Aad27066 Aaay2706 Aad27066 Aad27066 | 100.0 13 2 AAW22121 Aaw22121 Padre (pa Aw67036 Aaw67036 Aaw68092 Aaw68092 Aaw68092 Aaw88092 Aaw880067 Aaw880071 Aaw880071 | 100.0 13 2 AAW22121 Padre (pa Aav22121 Padre (pa Padre (pa Pa Aav22121 Padre (pa Padre | 100.0 13 2 AAM22121 Padre (pa Aav22121 Aav22121 Padre (pa Aav22121 Aav22121 Human MHC 13 7 ADE37065 Ade3706 | 100.0 13 2 AAW22121 Padre (pa Pawe Pa | 100.0 13 2 AAW22121 Padre (pa Aav22121 Padre (pa Aav22121 Padre (pa Aav22121 Padre (pa Aav271821 Minetic pa May25251 Human MHZ | 13 2 AAW22121 Aaw22121 Padre (pa Aaw67016 Aav27181 Mimeric p | 13 2 AAW22121 AAW22121 Padre (pa Av22121 Av221221 Av22122 | 100.0 13 2 AAM22121 AAM22121 Padre (pa Agy18181 Minette (pa Agy28181 May28181 May28181 | 100.0 13 2 AMW22121 Padre (pa 200 23 100.0 13 7 ADM22121 Adv27122 Padre (pa 200 23 100.0 13 7 ADM27122 Adv27005 Adv27005 | 100.0 13 2 AANZ2121 Padre (pa Padre (pa | 100.0 13 2 ANW22121 Padre (pa Pa | 100.0 13 2 ANEG1212 Padre (pa Pa | 100.0 13 2 AMEZ2121 Padre (pa Pa | 100 0 11 2 ANYZ1211 ANAZ121 Dadre (pa 902 22 100 0 11 2 ANYZ121 ANYZ121 ANYZ121 ANYZ121 ANYZ121 ANYZ1221 ANYZ1221 ANYZ1221 ANYZ1221 ANYZ1221 ANYZ1221 ANYZ1221 ANYZ1221 ANYZ1221 ANYZ12221 ANYZ12221 ANYZ12221 ANYZ12221 ANYZ12221 ANYZ12221 ANYZ12221 ANYZ12222 HIMS untra 906 22 1000 0 13 7 ANYZ12220 ANYZ12221 ANYZ12222 ANY | 100 0 13 2 AMM2121 | 100.0 13.2 AMX21321 | MARCOLLIA MARC | 100.0 13.2 AMMEGORS AMMEGOR | 10.00 13 2 AMM72121 AMM72121 DAMM72121 DAMM72122 DAM | 10.00 10.0 | MARCOLO 10 2 AMAZOLO MARCOLO MARCOLO | MANY MANY | 10.00 10.1 2 MAZ2121 MAZ2121 | 10.00 11 2 AMY 70.01 12 AMY 70 | 10.00 11 2 AMY 2012 AMY 2012 Edge Edge | AMERICAN AMERICAN | MANY MANY | MANAZORIA AMAZORIA AMAZORIA MANAZORIA MANAZO | MANY MANY | 10.00 1.0 2. 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                 This is one of 57 specific examples of highly generic reduced size LHRH analogues. It is based on amino acid residues 2 to 9 of natural LHRH. The analogues can be used for treating diseases resulting from gonadal hormone over or under-production in either sex, controlling reproduction, as fertility promoters when administered in pulses or for reducing dihydrotestosterone levels. See also AAR11089 and AAR11091-4
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                                                                                                                        Gaps
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                                                                                                     100.0%; Score 23; DB 2; Length 8; 25.0%; Pred. No. 1.8e+06; Live 6; Mismatches 0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Polypeptide(s) comprising truncated detection, prevention and treatment
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                                                                                                                                                                                                           AAR35839 standard; protein; 8 AA
 Claim 4; Page 86; 90pp; English.
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(first entry)
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Best Local Similarity
2; Conserve
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Best Local Similarity
Matches 2; Conserv
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FWSYWLRP
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1 FDQGWGPI
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24-MAY-1993
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                                                                                                                                                                                                  Human
                                                                                                                                Aay17345 A
Aay42865 V
Aay42864 V
Aay42867 V
Aay179175 M
Aab17012 T
Aab17012 T
Aab186562 H
Aab86562 H
Aab87448 F
Aab87448 F
Aab87448 F
Aab87448 F
Aab87448 F
        Aaw52538
Aaw52539
Aaw37197
Aay08740
Aay08735
Aay08737
Aay08737
Aay08733
Aay08734
Aay08734
Aay08734
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                                   AAW37197
AAY25550
AAY08740
AAY08736
AAY08735
AAY08733
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AAY17345
AAY42865
AAY42864
         AAW52538
AAW52539
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AAY08738
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AAB17012
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                                                                                                                                                                                                                                                                                                               8 A.
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90US-00548511
                                                                                                                                                                                                                                                                                                             AAR11090 standard; protein;
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Modified-site
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10-JUL-1990;
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                                                                                                                                                                                                                                                                                                                                                                                                  antagonist
Synthetic
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RESULT 3

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This is a MDWZ binding peptide derivative capable of binding to a human oncogenic protein MDMZ. The MDMZ binding peptides can specifically invitro concogenic protein MDMZ. The MDMZ binding of the human p53 protein, in vitro or in vivo. Inhibiting the interaction between the p53 and MDMZ can induce growth arrest or apoptosis in tumbour cells comprising a wild-type p53 and non-elevated levels of MDMZ. The peptides may be used to identify molecules that bind to MDMZ and to identify and design inhibitors of MDMZ. They may also be used to purify binding partners especially MDMZ, diagnose disease by meásuring levels of MDMZ in blood of cancer and leukaemia patients and for treatment or prevention of disease involving p53/MDMZ interactions, especially tumours and viral infections. The peptides can be administered masslly, rectally, orally or by interfering with MDMZ/p53 interaction, the peptides can cativate and accumulation in normal cells. The peptides can activate moleculation in normal cells. The peptides can activate pompared with wild-type p53 blocking activity compared with wild-type p53.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Compounds binding to MDM2 protein and inhibit its interaction with p53 - useful in, e.g. diagnosis and treatment of cancer and viral infections and identifying binding agents.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Boettger A, Picksley S, Hochkeppel H;
Chene P, Furet P;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human oncogenic protein MDM2 binding peptide derivative 11.
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                                                                                                                                       /label= Aib
/note= "2-Aminoisobutyric acid"
                                                                                                   note= "2-Aminoisobutyric acid"
                           note= "N-terminal acetyl"
                                                                                                                                                                                                      /note= "C-terminal amide"
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Location/Qualifiers
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Matches 4; Conservative
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Garcia-Echeverria C,
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1 FMXYWXGL
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Modified-site
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Compsn. for inducing immune response contg. antigen and heat shock protein - also new hybrid peptide and related nucleic acid, for treatment
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Pred. No. 1.8e+06;
6; Mismatches 0; Indels
                                                                                                                                                                                                                   Vaccine; immunotherapy; heat shock protein; BiP; cancer; infectious disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Houghton A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (SLOK ) SLOAN KETTERING INST CANCER RES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         of infectious diseases and tumours.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Disclosure; Page 12; 58pp; English.
                                                                                                                                                                             Heat shock protein binding domain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAW37211 standard, peptide, 8 AA.
                                                    AAW19954 standard; peptide; 8 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hoe MH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.08;
                                                                                                                                                                                                                                                                                                                                                                                                       96WO-US013363
                                                                                                                                                                                                                                                                                                                                                                                                                                             95US-0002479P
95US-0002490P
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                                                                                                                                       (first entry)
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Best Local Similarity 25.0
Matches 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hartl FU,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 1997-165035/15.
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1 FWGLWPWE 8
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                                                                                                                                                                                                                                                                                                                                                                                                       16-AUG-1996;
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18-AUG-1995;
                                                                                                                                   10-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Rothman JE,
                                                                                                                                                                                                                                                                                                                                                               27-FEB-1997
                                                                                                                                                                                                                                                                              Synthetic.
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                                                                                               AAW19954;
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Gaps

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AAW37211

ò 셤 Ser or Asp

/label= Arg, His, Glu, Cys,
/note= "preferentially Asp"

label= His, Phe or Tyr

label= Gly, Glu, Thr, Ala or Asp note= "preferentially Gly"

'label= Gly,

/label= Phe, Gln or Leu

97WO-EP003549. 96GB-00014197 97GB-00007041

label= Glu, Thr, Ala, Phe or Ser 'note= "preferentially Glu"

Ala or Ser

'label= Met, Ile, Thr, Arg, 'note= "preferentially Met"

Location/Qualifiers

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MDM2; oncogenic protein; p53; human; inhibition; interaction; cancer; tumour; diagnosis; binding; viral infection.
                 Human oncogenic protein MDM2 binding generic peptide sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (NOVS ) NOVARTIS AG.
(CANC-) CANCER RES CAMPAIGN TECHNOLOGY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Lane D, Boettger V,
Garcia-Echeverria C,
                                                                                                                                                       Misc-difference
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                                                                                                       Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15-JAN-1998.
     This is a MDM2 binding peptide derivative capable of binding to a human oncogenic protein MDM2. The MDM2 binding peptides can specifically inhibit or block the binding of MDM2 to the human p53 protein, in vitro or in vivo. Inhibiting the interaction between the p53 and MDM2 can induce growth arrest or apoptosis in tumour cells comprising a wild-type p53 and non-elevated levels of MDM2. The peptides may be used to identify molecules that bind to MDM2 and to identify binding. They may also be used to purify binding partners especially MDM2, diagnose disease by measuring levels of MDM2 in blood of cancer and leukaemia patients and for treatment or prevention of disease involving p53/MDM2 interactions, especially tumours and viral infections. The peptides can be administered nasally, rectally, orally or by injection. By interfering with MDM2/p53 interaction, the peptides can activate p53 function and accumulation in normal cells. The peptides can which mimic the MDM2 binding site in p53, have a significantly greater blocking activity compared with wild-type p53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Compounds binding to MDM2 protein and inhibit its interaction with p53 useful in, e.g. diagnosis and treatment of cancer and viral infections and identifying binding agents.
MDM2; oncogenic protein; p53; human; inhibition; interaction; cancer; tumour; diagnosis; binding; viral infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hochkeppel H;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 23; DB 2; Length 8;
Pred. No. 1.8e+06;
5; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Picksley S,
                                                                                                                                                                                       'note= "2-Aminoisobutyric acid"
                                                                                                                                   'note= "N-terminal acetyl"
                                                                                                                                                                                                                        /note= "C-terminal amide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Boettger A, Picks
Chene P, Furet P;
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                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 6; Page 26; 45pp; English.
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Similarity 37.5%; 37.5%; 37.000 S.
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                                                                                                                                                                                                                                                                                                                                                        96GB-00014197
97GB-00007041
                                                                                                                                                                     'label= Aib
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Lane D, Boettger V,
Garcia-Echeverria C,
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Best Local Similarity
Matches 3; Conserv
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                                                                                                                    Modified-site
                                                                                                                                                   Modified-site
                                                                                                                                                                                                      Modified-site
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07-APR-1997;
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                                                                    Homo sapiens
                                                                                                                                                                                                                                                        WO9801467-A2
                                                                                                                                                                                                                                                                                         15-JAN-1998
                                                 Synthetic.
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This represents a generic peptide that is capable of binding to an oncogenic protein MPMZ (especially human DMZ). The peptide and its derivatives can specifically inhibit or block the binding of MPMZ to the human p53 protein, in vitro or in vivo. Inhibiting the interaction between the p53 and MDMZ can induce growth arrest or apoptosis in tumour cells comprising a wild-type p53 and non-elevated levels of MDMZ. The peptide or its derivatives may be used to identify molecules that bind to MDMZ and to identify and design inhibitors of MDMZ/p53 binding. They may also be used to purify binding partners especially MDMZ, diagnose disease by measuring levels of MDMZ in blood of cancer and leuksemia patients and to treatment or prevention of disease involving p53/MDMZ interactions, especially tumours and viral infections. The peptides can be administered nasally, rectally, orally or by injection. By interfering with MDMZ/p53 interaction, the peptides can activate p53 inction and accumulation in normal cells. The peptides which minit the MDMZ binding site in p53, have a significantly greater blocking activity compared with wild-type p53
                                                                                                 Compounds binding to MDM2 protein and inhibit its interaction with p53 useful in, e.g. diagnosis and treatment of cancer and viral infections and identifying binding agents.
                                                                                                                                                                                                                                                                                                                    Claim 7; Page 42; 45pp; English.
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Best Local Similarity 100.C
WPI; 1998-100996/09.
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Gaps . 0

Picksley S, Hochkeppel H;

Boettger A, Picks. Chene P, Furet P;

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Gaps

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Length 8; 0; Indels

100.0%; Score 23; DB 2; I 100.0%; Pred. No. 1.8e+06; iive 0; Mismatches 0;

1 FXXXWXXX

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AAW37174 standard; peptide; 8 AA.

AAW3717

|:|:|:: FMX YWEGL 1 FXXXWXXX

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20-JUL-1998 (first entry)

AAW37174;

AAW37215 standard; peptide; 8 AA.

RESULT 8 AAW37215

|:::|::: FMDYWEGL 8

8

(first entry)

20-JUL-1998

AAW37215;

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This is a MDM2 binding peptide derivative capable of binding to a human concogenic protein MDM2. The MDM2 binding peptides can specifically concogenic protein MDM2. The MDM2 binding peptides can specifically concogenic or in vivo. Inhibiting the interaction between the p53 protein, in virco or in vivo. Inhibiting the interaction between the p53 and MDM2 can induce growth arrest or apoptosis in tumour cells comprising a wild-type p53 and non-elevated levels of MDM2. The peptides may be used to identify molecules that bind to MDM2 and to identify and design inhibitors of MDM2/p53 binding. They may also be used to purify binding partners of especially MDM2, diagnose disease by measuring levels of MDM2 in blood of cancer and leuksemia partients and for treatment or prevention of disease involving p53/MDM2 interactions, especially, rectally, orally or by the peptides can be administered nasally, rectally, orally or by inferienting with MDM2/p53 interaction, the peptides can activate p53 function and accumulation in normal cells. The peptides can activate p53 function and accumulation in normal cells. The peptides which mimic the MDM2 binding site in p53, have a significantly greater blooking activity compared with wild-type p53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Compounds binding to MDM2 protein and inhibit its interaction with p53 - useful in, e.g. diagnosis and treatment of cancer and viral infections and identifying binding agents.
                                                                                                                                                                                                                                          MDM2; oncogenic protein; p53; human; inhibition; interaction; cancer; tumour; diagnosis; binding; viral infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hochkeppel H;
                                                                                                                                                                                                      Human oncogenic protein MDM2 binding peptide derivative 10.
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Chene P, Furet P;
                                                                                                                                                                                                                                                                                                                                                                                    'note= "N-terminal acetyl"
                                                                                                                                                                                                                                                                                                                                                                                                                      /note= "C-terminal amide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (NOVS ) NOVARTIS AG.
(CANC-) CANCER RES CAMPAIGN TECHNOLOGY.
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                                                                                                    AAW37217 standard; peptide; 8 AA.
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Garcia-Echeverria C,
                   Φ
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Sequence 8 AA;
                                                                                                                                                                                                                                                                                                                                                                Modified-site
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                                                                                                                                                                                                                                                                                                                  Homo sapiens
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07-APR-1997;
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                                                                      RESULT
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This is a MDM2 binding peptide derivative capable of binding to a human oncogenic protein MDM2. The MDM2 binding peptides can specifically inhibit or block the binding of MDM2 to the human p53 protein, in vitro or in vivo. Inhibiting the interaction between the p53 and MDM2 can induce growth arrest or apoptosis in tumour cells comprising a wild-type p53 and non-elevated levels of MDM2. The peptides may be used to identify molecules that bind to MDM2 and to identify and design inhibitors of MDM2/p53 binding. They may also be used to purify binding partners especially MDM2, diagnose disease by measuring levels of MDM2 in blood of cancer and leukaemia patients and for treatment or prevention of disease involving p53/MDM2 interactions, especially tumours and viral infections. The peptides can be administered masally, rectally, orally or by injection. By interfering with MDM2/p53 interaction, the peptides can accinvate p53 function and accumulation in normal cells. The peptides manic the MDM2 binding site in p53, have a significantly greater b51 blocking activity compared with wild-type p53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Compounds binding to MDM2 protein and inhibit its interaction with p53 useful in, e.g. diagnosis and treatment of cancer and viral infections and identifying binding agents.
                                                                                                                                                                                                                                                                                                                                      /label= OTHER
/note= "Ac3c (1-amino-cyclopropane-1-carboxylic acid)"
                                                                                Human oncogenic protein MDM2 binding N-acylated peptide derivative 18.
                                                                                                                  MDM2; oncogenic protein; p53; human; inhibition; interaction; cancer; tumour; diagnosis; binding; viral infection.
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Chene P, Furet P;
                                                                                                                                                                                                                                                                                                     note= "2-Aminoisobutyric acid"
                                                                                                                                                                                                                                                     'note= "N-terminal acetyl"
                                                                                                                                                                                                                                                                                                                                                                                       /note= "C-terminal amide"
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(CANC-) CANCER RES CAMPAIGN TECHNOLOGY.
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97GB-00007041
                                                                                                                                                                                                                                                                                   label= Aib
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Garcia-Echeverria C,
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                                                                                                                                                                                                                                                                                                                        Misc-difference
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Modified-site
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                                                                                                                                                                                                                                                                                                                                                                       Modified-site
                                                                                                                                                                                    Homo sapiens
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07-APR-1997;
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                                                                                                                                                                   Synthetic
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Sequence 8 AA;

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Gaps ö

; Score 23; DB 2; Length 8; Pred. No. 1.8e+06; 6; Mismatches 0; Indels

100.0%; 25.0%; F

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Compounds binding to MDM2 protein and inhibit its interaction with p53 useful in, e.g. diagnosis and treatment of cancer and viral infections and identifying binding agents.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     notes "Ac3c (1-amino-cyclopropane-1-carboxylic acid)"
                                                                                                                                                                                                                                                     Human oncogenic protein MDM2 binding N-acylated peptide derivative 17.
                                                                                                                                                                                                                                                                               MDM2; oncogenic protein; p53; human; inhibition; interaction; cancer; tumour; diagnosis; binding; viral infection.
                                Gaps
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Chene P, Furet P;
% Score 23; DB 2; Length 8;
Pred. No. 1.8e+06;
4; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                'label= Aib
'note= "2-Aminoisobutyric acid"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           note= "2-Aminoisobutyric acid"
                                                                                                                                                                                                                                                                                                                                                                                                     note= "N-terminal acetyl"
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                                                                                                                                                             AAW37214 standard; peptide; 8 AA.
 100.0%;
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97GB-00007041
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                             4; Conservative
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Garcia-Echeverria C,
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FMXYWEXL 8
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Query Match
Best Local Similarity
Matches 4; Conserv
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07-APR-1997;
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This peptide is capable of binding to an oncogenic protein MDM2 (especially human DM2). The MDM2 binding peptides can specifically inhibit or block the binding of MDM2 to the human p53 protein, in vitro or in vivo. Inhibiting the interaction between the p53 and MDM2 can induce growth arrest or apoptosis in tumour cells comprising a wild-type of p53 and non-elevated levels of MDM2. The peptides may be used to identify molecules that bind to MDM2 and to identify and design inhibitors of mDM2/p53 binding. They may also be used to purify binding partners especially MDM2, diagnose disease by messuring levels of MDM2 in blood of cancer and leuksemia patients and for treatment or prevention of disease involving p53/MDM2 interactions, especially tumours and viral infections. The peptides can be administered nasally, rectally, orally or by cirigerion. By interfering with MDM2/p53 interaction, the peptides can activate p53 function and accumulation in normal cells. The peptides which mimic the MDM2 binding site in p53, have a significantly greater
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               infections
cancer and leukaemia patients and for treatment or prevention of disease
           involving p53/MDM2 inferactions, especially tumours and viral infection. The peptides can be administered nasally, rectally, orally or by injection. By interfering with MDM2/p53 interaction, the peptides can activate p53 inntena and accumulation in normal cells. The peptides which mimic the MDM2 binding site in p53, have a significantly greater blocking activity compared with wild-type p53
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human oncogenic protein MDM2 binding peptide derivative 8.
                                                                                                                                                                                     100.0%; Score 23; DB 2; Length 8; 62.5%; Pred. No. 1.8e+06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Boettger A, Picksley S,
Chene P, Furet P;
                                                                                                                                                                                                       Pred. No. 1.8e
3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (NOVS ) NOVARTIS AG. (CANC-) CANCER RES CAMPAIGN TECHNOLOGY.
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                                                                                                                                                                                                                                                                                                                                                                                                  AAW37180 standard; peptide; 8 AA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                       Local Similarity 62.5 es 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Lane D, Boettger V,
Garcia-Echeverria C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1998-100996/09.
                                                                                                                                                                                                                                                                                    |:|:||:
FMXYWXXL 8
                                                                                                                                                                                                                                                                1 FXXXWXXX
                                                                                                                                                   Sequence 8 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                       AAW37180;
                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                            RESULT 10
AAW37180
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8888888888
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FMDYWXGL
                                                       Sequence 8 AA;
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                                                                                                                                                                                                                                        17-OCT-2003
19-NOV-1999
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                                                                                                                                                                                                                   AAY40266;
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                                                                                                                                                                         RESULT 12
AAY40266
                                                                                               Matches
  8889888
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This is a MDM2 binding peptide derivative capable of binding to a human oncogenic protein MDM2. The MDM2 binding peptides can specifically inhibit to block the binding of MDM2 to the human p53 protein, in vitro or in vivo. Inhibiting the interaction between the p53 and MDM2 can induce growth arrest or apoptosis in tumour cells comprising a wild-type p53 and non-elevated levels of MDM2. The peptides may be used to identify molecules that bind to MDM2 and to identify and design inhibitors of MDM2/p53 binding. They may also be used to purify binding partners especially MDM2, diagnose disease by measuring levels of MDM2 in blood of cancer and leukaemia patients and for treatment or prevention of disease involving p53/MDM2 interactions, especially tumours and viral infections. The peptides can be administered nasally, rectally, orally or by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Compounds binding to MDM2 protein and inhibit its interaction with p53 useful in, e.g. diagnosis and treatment of cancer and viral infections and identifying binding agents.
                                                                                                                                                                                                                                                 MDM2; oncogenic protein; p53; human; inhibition; interaction; cancer; tumour; diagnosis; binding; viral infection.
                                                                 Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hochkeppel H;
                                                                                                                                                                                                                            Human oncogenic protein MDM2 binding peptide derivative 12.
                                          Length 8;
                                                               Indels
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                                          ; Score 23; DB 2;
Pred. No. 1.8e+06;
6; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                      'note= "2-Aminoisobutyric acid"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Picksley S,
blocking activity compared with wild-type p53
                                                                                                                                                                                                                                                                                                                                     'note= "N-terminal acetyl"
                                                                                                                                                                                                                                                                                                                                                                                         'note⊨ "C-terminal amide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Boettger A, Picks
Chene P, Furet P;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CANCER RES CAMPAIGN TECHNOLOGY.
                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example 6; Page 26; 45pp; English
                                                                                                                                                            AAW37219 standard; peptide; 8 AA.
                                         100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               96GB-00014197.
97GB-00007041.
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                                                    25.0%;
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                                                                                                                                                                                                       (first entry)
                                       Query Match
Best Local Similarity 25.0
Matches 2; Conservative
                                                                                                                                                                                                                                                                                                                                                           label=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Lane D, Boettger V,
Garcia-Echeverria C,
                                                                                   1 FXXXWXXX 8
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                                                                                               |:::|:::
1 FMDYWEGL 8
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                     Sequence 8 AA;
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07-APR-1997;
                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                               WO9801467-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                          04-JUL-1997;
                                                                                                                                                                                                       20-JUL-1998
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                                                                                                                                                                                                                                                                                 Synthetic.
                                                                                                                                                                                  AAW37219;
                                                                                                                                        RESULT 11
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lymphocytes (CD8+ epitopes), T helper cells (CD4+ epitopes), or B epitopes recognized by corresponding antibodies. The epitopes may be used in the composition of the invention. The specification describes a lipopeptide that has a peptide part derived from mammalian interferon gamma (IFNg) and one or more lipophilic parts comprising a linear or branched, (un) saturated 4-20C hydrocarbyl chain or a steroid. The lipopeptide are used to treat or prevent any condition that responds to lipopeptide and used to treat or prevent any condition that responds to lipopeptide as adjuvant for vaccines (particularly those directed against tumors, viral or parasitic infections), to stimulate or (re)orient the immune response between types 1 and 2 cytokine profiles. Particular applications are treatment of infections (particularly viral, e.g. cquired immune deficiency syndrome, papilloma (cancer) and hepatitis, but also bacterial, fungal, parasitic or helminth); cancers (particularly resorthelioma), allergy; and autoimmune diseases. (Updated on 17-0CT-2003
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injection. By interfering with MDM2/p53 interaction, the peptides can activate p53 function and accumulation in normal cells. The peptides which mimic the MDM2 binding site in p53, have a significantly greater blocking activity compared with wild-type p53
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cytotoxic T cell; T lymphocyte; CD8+ epitope; T helper cell; CD4+ epitope; B epitope; lipopeptide; interferon gamma; adjuvant; vaccine; tumor; infection; immune response; cytokine profile; acquired immune deficiency syndrome; papilloma; cancer; hepatitis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Loing
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                                                                                                                                                                                                                                                         ; Score 23; DB 2; Length 8; Pred. No. 1.8e+06; 5; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Auriault C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (INRM ) INSERM INST NAT SANTE & RECH MEDICALE
(INSP ) INST PASTEUR LILLE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Amino acid sequence of a HIV-1 epitope.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ver Waerde C,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAY40266 standard; peptide; 8 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human immunodeficiency virus 1.
                                                                                                                                                                                                                                                         100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98FR-00001439
                                                                                                                                                                                                                                                                                       Similarity 37.5%;
3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
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Best Local Similarity
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Gaps

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Indels

Pred. No. 1.8e+06;

6; Mismatches

p53; HBV;

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Lipopeptide, epitope, cytotoxic T lymphocyte, CTL; lipid, spacer, electrical charge, hydrophilicity, vaccine, immune response; HIV; human immunodeficiency virus; hepatitis B virus; papilloma virus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (INRM ) INSERM INST NAT SANTE & RECH MEDICALE. (CNRS ) CNRS CENT NAT RECH SCI. (INSP ) INST PASTEUR LILLE.
                                                                                                                                                                                                                                        HIV-1 Gp120 protein (aa428-435) binds HLA-A2.
                                                                                                                                                   AAY53417 standard; protein; 8 AA.
                                                                                                                                                                                                                                                                                                                                                            Human immunodeficiency virus 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   98FR-00004323
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25.0%;
                                                                                                                                                                                                                                                                                                                 melanoma; malaría; parasite.
                                                                                                                                                                                                          (first entry)
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es 2; Conservative
                 2; Conservative
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   Best Local Similarity
                                            1 FXXXWXXX
                                                                        FPSTWYVA
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1 FINMWQEV
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                                                                                                                                                                                                                                                                                                                                                                                         FR2776926-A1
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                                                                                                                                                                               AAY53417;
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               Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This invention describes a novel method of desensitizing a patient to a polypeptide allergen and comprises administering to the patient a peptide desired from the allergen where restriction to a MHC Class II molecule possessed by the patient can be demonstrated for the peptide and the postide is able to induce a late phase response in an individual who peptide is able to induce a late phase response in an individual who peptide is able to induce a late phase response in an individual who can be used for desensitising patients to allergens present in e.g. grass, tree and weed including ragweed) pollens, fungi and moulds, foods, stinging insects, the chiromidae (non-biting midges), spiders and mites, housefly, fruit fly, sheep blow fly, screw worm fly, grain weevil, silkworm, honeybee, non-biting midge larvae, bee moth larvae, mealworm, cockroach, larvae of reinbrio molltor beetle, mammals such as cat, dog, horse, cow, pig, sheep, rabbit, rat, guinea pig, mice or gerbil. They can also be used to produce immunological vaccines which may be used to prevent and/or treat conditions involving hypersensitivity to allergens. This sequence represents a hypothetical peptide which can be used to desensities the human anjor histocombatibility complex (MHC) class II response to
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                                                                                                                                                                                                                                                                                                                                        Major histocompatibility complex; class II; desensitising; human; allergen; grass; tree; weed; pollen; fungi; mould; food; insect; sting; chiromidae; spider; mite; housefly; fruit fly; sheep blow fly; honeybee; screw worm fly; grain weevil; silkworm; bee moth; larvae; mealworm; cat; cockroach; beetle; dog; horse; cow; pig; sheep; rabbit; rat; guinea pig; mice; gerbll; vaccine; treatment; prevention; hypersensitivity.
                                                                                        Gaps
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                                                                                                                                                                                                                                                                                                             Human MHC Class II hypothetical desensitising peptide #14.
                                                         Length 8;
                                                                                      0; Indels
                                                       ; Score 23; DB 2;
Pred. No. 1.8e+06;
6; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Desensitizing patients to polypeptide allergens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (IMCO-) IMPERIAL COLLEGE INNOVATIONS LTD.
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                                                                                                                                                                                                                       AAY25556 standard; peptide; 8 AA.
                                                         100.0%;
25.0%; F
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                                                                                      Conservative
to standardise OS field)
                                        Query Match
Best Local Similarity
2; Conserve
                                                                                                                  FXXXWXXX 8
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FINMWQEV 8
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                             Sequence 8 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO9934826-A1
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                                                                                                                                                                                                                                                                                   30-SEP-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                 Synthetic.
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                                                                                                                                           New lipopeptide containing lipid regions and two epitopes, all separated by peptide spacers that impart hydrophilicity, useful in vaccines.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
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Melnyk O,
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25.0%; Pred. No. 1.8e+06;
iive 6; Mismatches 0;
Gras MH,
Gahery SH,
                                                                                                                                                                                                                                                                  Disclosure; Page 20; 35pp; French.
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ID AAY2
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DB 2; Length 8;

100.0%; Score 23;

Query Match

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acquired immune deficiency; autoimmune disease.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              defection;
                      Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAB09130;
                                                                                                                                                                Moroi Y;
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                                                                                                                                                                                                                                                                                                                                                                                                The invention relates to the generation of mixed micelles or microaggregates for inducing an immune response comprise: (a) a first lipopeptide comprising at least one CTL (Cytocoxic T-lymphocyte) epitope and at least one lipid unit; and (b) a second lipopeptide comprising at different from that of the first lipopeptide. This peptide represents an example of a lipopeptide epitope used in the invention and is derived from a human immunodeficiency virus type 1 (HIV-1) protein. The firmunogenic lipopeptide micelles are used in vaccines, especially against HIV, hepatitis B virus (HBV), papilloma viruses, p53, melanoma or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conjugate peptide, heat shock protein; hsp; phage display library; virus; surface protein; tethering peptide; chaperone process; cytokine; cancer; neoplastic disease; infectious disease; bacterium; immune system; fungus;
                                                                        CTL;
HBV;
p53;
                                                                                                                                                                                                                                                                                                                                             Immunogenic lipopeptide micelles - comprising lipopeptides containing cytotoxic and helper T-lymphocyte epitopes.
                                                                                 cytotoxic T-lymphocyte, epitope, lipid, helper T-lymphocyte, HTL, tetanus, toxin, vaccine, HIV, hepatitis B virus, papilloma virus, melanoma, Plasmodium falciparum, malaria.
                                                                     Micelle, microaggregate, induction, immune response, lipopeptide,
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0
                                                                                                                                                                                                                                                                                            Tartar A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 100.0%; Score 23; DB 2; Length 8; Best Local Similarity 25.0%; Pred. No. 1.8e+06; Matches 2; Conservative 6; Mismatches 0; Indels
                                                 HIV-derived lipopeptide epitope #28 for mixed micelles.
                                                                                                                                                                                                                                                                                           Ä,
                                                                                                                                                                                                                                                 & RECH MEDICALE.
                                                                                                                                                                                                                                                                                           Wieruszeski
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Peptide Seg ID No: 144 of WO9922761.
                                                                                                                                                                                                                                                                                                                                                                              Disclosure; Page 33; 60pp; French
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAY16874 standard; peptide; 8 AA.
                                                                                                                                                                                                                                                                                       отав МН, Bossus M, Lippens G,
Guillet JG, Bourgault VI;
                                                                                                                                                                                                                                              (INRM ) INSERM INST NAT SANTE & (CNRS ) CNRS CENT NAT RECH SCI. (INSP ) INST PASTEUR LILLE.
                                                                                                                                      Human immunodeficiency virus 1.
                                                                                                                                                                                                       97FR-00015246
                                                                                                                                                                                                                          97FR-00015246
                             14-SEP-1999 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                          WPI; 1999-349509/30.
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1 FINMWQEV 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 8 AA;
                                                                                                                                                                                                                          03-DEC-1997;
                                                                                                                                                                                                      03-DEC-1997;
                                                                                                                                                            FR2771640-A1
                                                                                                                                                                                  04-JUN-1999.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20-JUL-1999
                                                                                                                            Synthetic.
         AAY26758;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAY16874;
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The invention relates to conjugate peptides engineered to noncovalently bind to heat shock proteins (hsp). A method of identifying a hsp binding peptide comprises (a) contacting a phage display library having bacteriophage expressing, in a surface protein, inserted peptides with a hsp target, and bound to a benzoquinone ansamycin antibiotic (BAA), in a physiologic binding buffer; (b) isolating a phage binding to the hsp target, and (c) identifying the inserted peptide expressed. The peptides which bind to a hsp can be used as tethéring peptides for a hsp which may serve as an accessory in a chaperone process and/or may comprise a cytokine. They can also be coupled to antigens to induce an immune response. Such compositions can be used for treating neoplastic disease, e.g. diseases caused by a bacterium, virus, proteozoan, mycoplasma, fungus, yeast, parasite or prion, or a disease of the immune system, e.g. acquired immune deficiencies or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3B virus; HGBV; diagnosis; therapeutic; immunogenic; infection; characterisation; hepatitis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                      Hartl U,
                                                                                                                                                                                                                                                                                                                                                                                                             Identifying peptides which bind heat shock proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hepatitis GB virus protein sequence SEQ ID NO:252.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; Score 23; DB 2; L, Pred. No. 1.8e+06; 6; Mismatches 0;
                                                                                                                                                                                                                                                                      Hoe MH, Houghton A,
                                                                                                                                                                                                                (SLOK ) SLOAN KETTERING INST CANCER RES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example, Page 19; 155pp, English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAB09130 standard; protein; 8 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%;
                                                                                                        98WO-US022335.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25.0%;
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(first entry)
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Best Local Similarity 25.0°
-1° 2, Conservative
                                                                                                                                                                                                                                                                        Mayhew M,
                                                                                                                                                                                                                                                                                                                                                    WPI; 1999-313177/26.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 8 AA;
                                                                                                                                                                                                                                                                      Rothman JE,
WO9922761-A1
                                                                                                     22-0CT-1998;
                                                                                                                                                             31-OCT-1997;
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30-AUG-2000
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                                                     14-MAY-1999
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The present invention describes isolated prepared HER2/neu epitopes (I). Also described are: (1) a clonal cytotoxic T lymphocyte (CTL) that is culture in vitro and binds to a complex of an epitope (II, bound to a chuman leukocyte antigen (HLA) molecule; (2) a peptide (II) comprising (I) and a second epitope and the peptide is less than 50 contiguous amino caids that have 100% identity with a native peptide sequence of HERZ/neu; (3) a vaccine composition (III) comprising (II) and a pharmaccutical excipient; (4) an isolated nucleic acid encoding a peptide comprising (I) cand (5) an isolated nucleic acid encoding (II). (I) has cytostatic and immunostimular activities, and can be used in vaccines (I). (II) and (III) are useful for inducing cellular immune responses for the prevention and treatment of cancer. (I) and (II) are useful for inducing cellular immune response for the contigen when incubated with a T lymphocyte sample form a patient and detecting the presence of bound T lymphocyte sample form a patient and detecting the presence of bound T lymphocyte sample form a patient and cation shown and immunosuppressive epitopes may be combined to in whole antigens may be avoided. Selected epitopes may be combined to enhance immunogenicity. The possible pathological side effects caused by infectious agents or whole protein antigen is eliminated. The vaccine sprovides the apportunity to combine epitopes derived from the same pathogen. Epitope-based anti-tumour selected antigen loss. AAG88266 to AAG89121 represent amino acid sequences used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human, HER2/neu, epitope, human leukocyte antigen, HLA; T cell,
immune response, vaccine, tumour; cancer, cytostatic, immunostimulant,
tumour-associated antigen; T lymphocyte, cytotoxic T lymphocyte, CTL.
                                                                         An isolated prepared HER2/neu epitope useful in a vaccine for inducing cellular immune responses for the prevention and treatment of cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; Score 23; DB 4; Length 8; Pred. No. 1.8e+06; 6; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HER2/neu epitope B7 supermotif peptide #51.
                                                                                                                                             Claim 1; Page 184; 199pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAG88891 standard; peptide; 8 AA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                25.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2; Conservative
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                          NPI; 2001-374995/39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 FXXXWXXX 8
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO200141787-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 8 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10-DEC-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14-JUN-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAG88891;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 19
AAG88891
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The present invention describe a method for detecting target hepatitis GB virus (HGBV) nucleic acid (THN) in a test sample (T) suspected of containing HGBV. The method involves reacting (T) with a HGBV polymuclectide probe (I) containing 15 contiguous nucleotides, and which selectively hybridises to the HGBV genome or its full complement, and detecting the complex that contains THN, indicating the presence of target HGBV. The method is used for detecting target HGBV nucleic acid in the test sample suspected of containing HGBV and for characterisation of newly ascertained etiological agent of non-A, non-B, non-C, non-D and non-B, and and AAA55270 to AAA55489 and AAB08985 to AAB09480 represent nucleotide and protein sequences used in the exemplification of the present invention. (Updated on 06-AUG-2003 to correct OS field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                         Detecting target hepatitis GB virus nucleic acid in a test sample suspected of containing HGBV comprises reacting the test sample the HGBV polynucleotide probe and detecting the complex that contains target HGBV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human; HER2/neu; epitope; human leukocyte antigen; HLA; T cell;
immune response; vaccine; tumour; cancer; cytostatic; immunostimulant;
tumour-associated antigen; T lymphocyte; cytotoxic T lymphocyte; CTL.
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                                                                                                                                                                                      Dawson GJ, Leary TP, Muerhoff AS, Pilot-Matias TJ, Buijk S
Mushahwar IK, Simons JN, Desai SM, Erker JC, Schlauder GG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; Score 23; DB 3; Length 8; Pred. No. 1.8e+06; 6; Mismatches 0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HER2/neu epitope B7 supermotif peptide #50.
                                                                                                                                                                                                                                                                                                                                                                                                   Example 9; Col 331-332; 369pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAG88890 standard; peptide; 8 AA.
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94US-00242654.
94US-00283314.
94US-00344185.
94US-00344190.
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                                                                                            95US-00377557
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                                                                                                                                                                                                                                                          WPI; 2000-338307/29.
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Best Local Similarity
Matches 2; Conserv
                                                                                                                                        (ABBO ) ABBOTT LAB.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200141787-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 8 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11-SEP-2001
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                                                                                              30-JAN-1995;
                                           23-NOV-1994;
23-NOV-1994;
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Keogh E;
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note= "D-form residue"

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AAU72016;
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AAU72016
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                        The present invention describes isolated prepared HREA/new epitopes (I).

Also described are: (I) a clonal cyttocxic T lymphocyte (CTL) that is culture in vitro and binds to a complex of an epitope (I), bound to a culture in vitro and binds to a complex of an epitope (I), bound to a culture in vitro and binds to a complex (I) comprising (I) cand second epitope and the peptide is less than 50 contiguous amino acids that have 100% identity with a native peptide sequence of HERZ/new; (3) a waccine composition (III) comprising (II) and a pharmaceutical excipient; (4) an isolated nucleic acid encoding a peptide comprising (I) comprising (II) are useful for inducing callular immune responses for the prevention and treatment of cancer. (I) and (III) are useful for inducing callular immune responses for the prevention and treatment of cancer. (I) and (III) are useful for antigen when incubated with a T lymphocyte and in a persent of antigen when incubated with a T lymphocyte to (I) or (II). Epitope antigen when incubated with a T lymphocyte to (I) or (II). Epitope cancer in whole mighes mean that immunosuppressive epitopes that may be present in whole antigens may be avoided. Selected epitopes and y be combined to channed immunogenicity. The possible pathological side effects caused by infectious agents or whole protein antigen is eliminated. The vaccine provides the opportunity to combine epitopes derived from contines provides the opportunity to combine epitopes derived from multiple tumour-associated molecules addressing the problem of tumour-ctumour variability and reducing the likelihood of tumour escape due to antigen loss. AAG88266 to AAG89121 represent amino acid sequences used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                             The present invention describes isolated prepared HBR2/neu epitopes (I) Also described are: (1) a clonal cytotoxic T lymphocyte (CTL) that is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Neuromedin B; NMB; somatostatin; analogue; Helicobacter pylori; cancer;
                                                                                               An isolated prepared HER2/neu epitope useful in a vaccine for inducing cellular immune responses for the prevention and treatment of cancer.
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  Celis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö

    7
    'note= "disulfide bond cyclises the peptide"

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Southwood S, Chesnut R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         label = OTHER
/note= "modified by D-4-NO2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Neuromedin B and somatostatin analogue #25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 note= "3-pyridylalanine"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
                                                                                                                                                      Claim 1; Page 184; 199pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAB59632 standard; peptide; 8 AA.
Sidney J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            label= OTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 25.0
Matches 2; Conservative
                                                        WPI; 2001-374995/39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 FXXXWXXX 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 FPIKWMAL 8
Sette A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 8 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Modified-site
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           23-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Synthetic.
Fikes J,
Keogh E;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAB59632;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cyclic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 20
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(MMB). These can be used in the treatment of various cancers, anorexia, hypothyroidism, hyperaldosteronism, Helicobacter pylori proliferation, acromegaly, restenosis, Crohn's disease; systemic sclerosis, external and internal pancreatic pseudocysts and ascites, nesidoblastosis, irritable bowel syndrome, pancreatitis, small bowel obstruction, pastrocesophageal reflux, duodenogastrić reflux, Cushing's syndrome, hyperparathyroidism, Graves disease, orthostatic neuropathy, Paget's disease, polycystic ovary disease, orthostatic hypotension, postprandial hypotension, panic attacks, diabetes mellitus, hyperlipidaemia, insulin insensitivity, syndrome X, peptic ulcers, arthritis, obesity, opicid overdose and gastrointestinal bleeding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    present invention provides analogues of somatostatin and neuromedin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Melanoma antigen; MART-1; MAGE-1; gp100; cytostatic; immune response; immunotherapeutic; heat shock protein; tyrosinase; BAGE; NYEs01; GM2; tyrosinase related protein 1; tyrosinase related protein 2; vaccine; javelin molecule; melanoma antigen recognised by T cells-1; human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New polypeptide compounds are somatostatin and neuromedin B ragonists, for treating a wide range of disorders e.g. cancer, gastrointestinal disorders and inflammatory disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 23; DB 4; Length 8; 37.5%; Pred. No. 1.8e+06; ive 5; Mismatches 0; Indels
                                                             'note= "modified by 4-0-Bzl"
                                                                                                                                                                                                                            /note= "C-terminal amide"
                                                                                                                               'note= "D-form residue"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Melanoma antigen, javelin peptide #2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAU72016 standard; peptide; 8 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 15; Page 72; 85pp; English
                                                                                                                                                                                         /label= OTHER
                           label= OTHER
                                                                                                                                                                                                                                                                                                                                                                                                                             05-JUN-2000; 2000WO-US015396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sadat-Aalaee D, Morgan BA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity 37.5
Matches 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Enterobacteria phage M13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (BIOM-) BIOMEASURE INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (revised)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2001-146787/15.
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1 FXCFWKCY
                                                                                            Misc-difference
                                                                                                                                                                                                                                                                                          WO200075186-A1
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Modified-site
                                                                                                                                                          Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           04-JUN-1999;
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26-FEB-2002
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us-09-214-371-10.dx.rag

(HOEM/)

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least one human leukocyte antigen (HLA) binding peptide comprising an isolated, prepared epitope comprising one of 547 8-11 residue amino acid sequences (S1), given in AAB7630 to AAB76349. (1) has cytostatic, virucide, hepatotopic, antiinflammatory, anti-HIV (human immunodeficiency virus) and protozoacide activities, which can be used in vaccine production and is an inducer of cytotoxic T-cell response. (I) is useful for inducing a cytotoxic T cell response against a preselected antigen in a patient expressing a specific major histocompatibility complex (MHC) class I allele, by contacting cytotoxic T cells (CTLs) from the patient with (I). (I) is useful as a vaccine to treat and/or prevent viral infection and cancer such as prostate cancer, hepatitis B, hepatitis C, human papilloma virus (HPV) infection, cytomegalovirus (CMV), acquired immunodeficiency syndrome (AIDS), renal carcinoma, cervical carcinoma, malaria, and condyloma acuminatum
                                                                                                                                                                                                                                        Composition comprising human leukocyte antigen binding peptide which comprises isolated, prepared epitope useful for treating viral infections such as acquired immunodeficiency syndrome, and cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human leukocyte antigen; HLA; major histocompatibility complex; MHC; cytotoxic T lymphocyte; CTL; human class I MHC; immunogenic; HLA binding peptide; immune response; glycoprotein; cytostatic; virucide; hepatotropic; antiinflammatory; anti-HHV; vaccine; human immunodeficiency virus; protozoacide; viral infection; cancer; human immunodeficiency virus; protozoacide; viral infection; cancer; cytomegalovirus; CMV; acquired immunodeficiency syndrome; AIDS; renal carcinoma; cervical carcinoma; malaria;
                                                                                                                                                                                                                                                                                                                                                                                         The present invention describes a composition (I) which comprises at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 23; DB 4; Length 8; 25.0%; Pred. No. 1.8e+06; cive 6; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Tumour associated antigen Her2/neu immunogenic peptide.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAB76082 standard; peptide; 8 AA.
                                                                                                                                                                                                                                                                                                                                          Claim 1; Page 47; 58pp; English.
                                                                                                                                                 Southwood
  28-JUN-2000; 2000WO-US017842.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28-JUN-2000; 2000WO-US017842
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                                                  99US-0141422P
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity 25.0 tes 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        condyloma acuminatum
                                                                                               (EPIM-) EPIMMUNE INC
                                                                                                                                            Sidney J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 FXXXWXXX 8
                                                                                                                                                                                              WPI; 2001-112389/12
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1 FPIKWMAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200100225-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 8 AA;
                                                  29-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              29-JUN-1999;
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                                                                                                                                                 Sette A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           comprising administration of an immunotherapeutic composition, comprising a heat shock protein, and a melanoma antigen, where the melanoma antigen is selected from tyrosinase, tyrosinase related protein 1, tyrosinase related protein 2, gp 100, MAGE antigens, BAGE antigens, NYESO1, MART antigens GAZ, antigenic portions and combinations of these. The melanoma antigen is covalently bound to a javelin molecule, where the melanoma antigen bound to the javelin molecule is non-covalently bound to the beat shock protein. The composition is useful for inducing an immune response for the treatment of melanoma. ANT1980-AAU72481 represent melanoma antigen peptides of the invention. (Updated on 11-SEP-2003 to standardise
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human leukocyte antigen, HLA, major histocompatibility complex; MHC; cytocoxic T lymphocyte; CTL; human class I MHC; immunogenic; HLA binding peptide; immune response; glycoprotein; cytostatic; virucide; hepatocropic; antiinflammatory; anti:HIV; vaccine; human immunodeficiency virus; protozoacide; viral infection; cancer; prostate cancer; hepatitis B; hepatitis C; human papilioma virus; HPV; cytomegalovirus; CMV; acquired immunodeficiency syndrome; AIDS; renal carcinoma; cervical carcinoma; lymphoma; malaria;
                                                                                                                                                                                                                                                                                                                                                                                                                                      melanoma comprises a heat shock
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The invention relates to a method of induction of an immune response,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                          Hoe M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 23; DB 4; Length 8; Pred. No. 1.8e+06; 6; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Tumour associated antigen Her2/neu immunogenic peptide.
                                                                                                                                                                                                                                                                                                                                          Houghton A, Livingston P, Al-Awgati Q, Mayhew M,
                                                                                                                                                                                                                                                                                                                                                                                                                                 Anti cancer vaccine for the treatment of meland protein and a melanoma antigen i.e. tyrosinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; Page 14-15; 150pp; English
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25.0%; P
                                                                                               17-APR-2001; 2001WO-US012449.
                                                                                                                                            17-APR-2000; 2000US-0197462P.
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                                                                                                                                                                                         HOUGHTON A.
LIVINGSTON P.
AL-AWQATI Q.
MAYHEW M.
                                                                                                                                                                                                                    α.
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1 FWGLWPWE 8
                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2001-663092/76
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WO200178655-A2
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                                                                                                                                                                                                                                                                                        HOE M
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                                               25-OCT-2001
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Best Loc Matches

à 유 RESULT 22 AAB76081

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Gaps

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RESULT 25
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                                                                                                                                                                        The present invention describes a composition (I) which comprises at least one human leukocyte antigen (HLA) binding peptide comprising an solated, prepared epitope comprising one of $47 8-11 residue amino acid sequences (SI), given in AAB75803 to AAB7649. (I) has cytostatic, virucide, hepatotropic, antiinflammatory, anti-HIV (human immunodeficiency virus) and protozoacide activities, which can be used in vaccine production and is an inducer of cytotoxic T-cell response. (I) is useful for inducing a cytotoxic T cell response against a preselected antiper in a patient expressing a specific major histocompatibility complex (MHC) class I allele, by contacting cytotoxic T cells (CTLS) from the patient with (I) (I) is useful as a vaccine to treat and/or prevent viral infection and cancer such as prostate cancer, hepatitis B, viral infection and cancer such as prostate cancer, hepatitis B, hepatitis C, human papilloma virus (HPV) infection, cytomegalovirus (CMV), acquired immunodeficiency syndrome (AIDS), renal carcinoma, cervical carcinoma, malaria, and condyloma acuminatum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                    Composition comprising human leukocyte antigen binding peptide which comprises isolated, prepared epitope useful for treating viral infections such as acquired immunodeficiency syndrome, and cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   L-amino acid oxidase; fungus; hydrogen peroxide; detergent; peroxidase; determenter inhibiticon; bleach; laundry; toothpaste; preservative; cosmetic; bread; dough improver; water treatment; pulp production; lignin; catalytic deamination; EC 1.4.3.2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Nucleic acids, useful for generating polypeptides with L-amino acid oxidase activity, which are useful as components of bread and dough,
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0
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; Score 23; DB 4; Length 8;
Pred. No. 1.8e+06;
6; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Trichoderma harzianum L-amino acid oxidase, peptide #1.
                               Southwood S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAU02206 standard; peptide; 8 AA.
                                                                                                                                                Claim 1; Page 47; 58pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%;
25.0%; P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (NOVO-) NOVOZYMES BIOTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99US-00314242
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
(EPIM-) EPIMMUNE INC
                             Sidney J,
                                                           WPI; 2001-112389/12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2001-431859/46.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FXXXWXXX
                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 8 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US6248575-B1.
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                            Sette A,
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Matches
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The sequence represents the amino acid sequence of Trichoderma harzianum L-amino acid oxidase (BC 1.4.3.2), peptide #1. L-amino acid oxidase (acalyese the deamination of an L-amino acid in the presence of water and oxygen to produce a 2-oxo acid, ammonia and hydrogen peroxide. The isolated nucleic acid sequence is useful for producing or generating polypeptides with L-amino acid oxidase activity, which are useful in processes where in situ generation of hydrogen peroxide is desired, e.g. as component of detergent compositions having peroxidase systems. The polypeptides are particularly useful for dye transfer inhibition during laundaring or for improved bleaching in laundry detergents. The polypeptides encoded by the nucleic acid may also be incorporated into toothpaste or used for preservation of cosmetics. The polypeptides may be improved my cosmetics. The polypeptides may be improved my cosmetics. The polypeptides may be implemented in processes for treating wastewater from pulp production, and lignin modification. (Updated on 11-SEP-2003 to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HIV; HIV-1; human immunodeficiency virus; env; pol; gag; nef; vpr; vpu; vif; tat; cytotoxic T lymphocyte; CTL; immune response; epitope; antigen; vaccine; HIV infection; immunisation; virucide.
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toothpaste or cosmetics, or of detergent compositions having peroxidase
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Pred. No. 1.8e+06;
6; Mismatches 0;
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Kubo RT, Grey HM;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABP20955 standard; peptide; 8 AA.
                                                                Example 4; Col 27; 28pp; English.
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25.0%; I
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Best Local Similarity 25.0'
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Celis E,
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1 FSYPWWIK
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Baker DM,
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De used for immuniaing subjects against HV-1 infections. The use of group-based vaccines has several advantages over traditional vaccines of particularly when compared to the use of whole antigens in vaccine compositions. There is evidence that the immune response to whole compositions. There is evidence that the immune response to whole antigens is directed largely toward variable regions of the antigen, and proup-based vaccine may be selected from conserved regions of viral or tumour-associated antigens, which therefore reduces the likelihood of tumour-associated antigens, which therefore reduces the likelihood of the antigens of an group-based vaccines. An additional advantage of an group-based vaccines approach is the ability to composition of the groups, achieving, for example, enhanced immunogenicity. Accordingly, the immune response can be modulated, as appropriate, for the target disease. Similar engineering of the response superseant peptide sequences used in the examplification of the present represent peptide sequences used in the examplification of the present invention. (Updated on 11-SEP-2003 to standardise OS field)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HIV; HIV-1; human immunodeficiency virus; env; pol; gag; nef; vpr; vpu; vif; tat; cytotoxic T lymphocyte; CTL; immune response; epitope; antigen; vaccine; HIV infection; immunisation; virucide.
       may
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   . (I) has virucide activity and can be used in vaccines. (I)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; Score 23; DB 4; Length 8; Pred. No. 1.8e+06; 6; Mismatches 0; Indels
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Kubo RT, Grey HM;
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(first entry)
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Best Local Similarity 25.0
Matches 2; Conservative
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Celis E,
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1 FFPDWQNY 8
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15-JUL-2002
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Baker DM,
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particularly when compared to the use of whole antigens in vaccine compositions. There is evidence that the immune response to whole antigens is directed largely toward variable regions of the antigen.

Allowing for immune escape due to mutations. The groups for inclusion in an group-based vaccine may be selected from conserved regions of viral or tumour-associated antigens, which therefore reduces the likelihood of escape mutants. Furthermore, immunosuppressive groups that may be present in whole antigens can be avoided with the use of group-based vaccines. An additional advantage of an group-based vaccine approach is the ability to combine selected groups (cTL and HTL), and further, to modify the composition of the groups, achieving, for example, enhanced immunogenicity. Accordingly, the immune response can be modulated, as appropriate, for the target disease. Similar engineering of the response is not possible with traditional approaches. ABP15501 to ABP25412 represent peptide sequences used in the exemplification of the present invention. (Updated on 11-SEP-2003 to standardise OS field)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HIV; HIV-1; human immunodeficiency virus; env; pol; gag; nef; vpr; vpu; vif; tat; cytotoxic T lymphocyte; CTL; immune response; epitope; antigen; vaccine; HIV infection; immunisation; virucide.
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group-based vaccines has several advantages over traditional vaccines,
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Celis E,
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1 FFPDWQNY
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15-JUL-2002
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Baker DM,
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Sequence 8 AA;

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compositions. There is evidence that the immune response to whole antigens is directed largely toward variable regions of the antigen, allowing for immune escape due to mutations. The groups for inclusion in an group-based vaccine may be selected from conserved regions of viral or tumour-associated antigens, which therefore reduces the likelihood of escape mutants. Furthermore, immunosuppressive groups that may be present in whole antigens can be avoide with the use of group-based vaccines. An additional advantage of an group-based vaccine approach is the ability to compine selected groups (CTL and HTL), and further, to modify the composition of the groups, achieving, for example, enhanced immunogenicity. Accordingly, the immune response can be modulated, as appropriate, for the target disease. Similar engineering of the response is not possible with traditional approaches. Application of the present represent peptide sequences used in the exemplification of the present invention. (Updated on 11-SEP-2003 to standardise OS field)
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Best Local Similarity 25.0
Matches 2; Conservative
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Polyglutamine repeat domain binding peptide #11. AAE12180 standard; peptide; 8 AA 18-DEC-2001 (first entry) AAE12180; RESULT 28 AAE12180

| :::|::: 1 FFPDWQNY

Polyglutamine repeat domain; huntingtin; atrophin; ataxin; androgen receptor protein; neurodegenerative disease; anticonvulsant; Huntington's disease; dentatorubral pallidoluysian atrophy; DRPLA; spinobulbar muscular atrophy; spinocerebellar ataxia; nootropic.

Unidentified

WO200168678-A2. 20-SEP-2001

16-MAR-2000; 2000US-0189781P

14-MAR-2001; 2001WO-US008222

(UYDU-) UNIV DUKE.

Strittmatter WJ, Burke JR, Nagai Y;

WPI; 2001-616285/71.

New polypeptides which selectively bind to expanded polyglutamine repeat domains, useful for treating neurodegenerative diseases, e.g. Huntington's disease.

Disclosure, Page 14; 59pp, English.

dentatorubral The present sequence is a polyglutamine repeat domain binding peptide. The peptide is useful for treating a cell that contains and expresses a protein having an expanded polyglutamine region (e.g. huntingtin; a trophin 1, ataxin 1, 2, 6 or 7; or androgen receptor protein), or treating a neurodegenerative disease characterised by the presence of expanded polyglutamine repeats, e.g. Huntington's disease, dentatorubral pallidoluysian atrophy (DREA), spinobulbar muscular atrophy, and spinocerebellar ataxia types 1, 2, 3, 6 and 7 :* .* .

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The present invention describes a method for treating a patient having, or is at risk of having, a cell expressing cytochrome P450 1B1 (CYP1B1), which involves administering to the patient a cytocoxic T-lymphocyte (CTL) that kills the cell, an antigen presenting cell (APC) that activates CTL, a peptide of CYP1B1 that; binds to major histocompatibility complex (MHC) molecule, or a nucleic acid molecule encoding CYP1B1 or peptide of CYP1B1. Also described are: (1) a method for assessing the complex (MHC) molecule, involving measuring the level of CYP1B1 to the peptide of CYP1B1 in a sample from the patient complex molecule, involving measuring the level of CTL specific for CYP1B1 or the peptide of CYP1B1 in a sample from the patient complex presents a peptide of CYP1B1 in a sample from the patient complex molecule. That binds to MHC complex molecule, (3) an exvivo complex molecule. The method is useful for treating a patient complex molecule. The method is useful for treating a patient complex molecule. The method is useful for treating a patient complex molecule. The method is useful for treating a patient complex molecule. The method is useful for treating a patient complex molecule. The method is useful for treating a patient complex molecule. The method is useful for treating a patient complex molecule. The method is useful for treating a patient complex molecule. The method is useful for treating a patient complex molecule. The method is useful for the prevention, treatment and diagnosis of cancer. e.g. melanoma, lymphoma, carcinoma, sarcoma, multiple myeloma, leukemia, and complex molecules. Mands965 represent CC lung, ovarian, uterine, cervical, prostate, liver, colon, pancreatic and colon, pancer amino acid control buman leukcoyre antigens (HLAB), as well as other amino acid control co
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Treating a cancer patient involves administering to patient a cytotoxic T-lymphocyte, an antigen presenting cell that activates T cells, a peptide of cytochrome P450 1B1, or a polynucleotide encoding the peptide.
                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Cytochrome P450 1B1; CYP1B1; cancer; immunotherapy; diagnosis; HLA; human leukcoyte antigen; cytocxic T-1ymphocyte; CTL; MHC; APC; major histocompatibility complex; antigen presenting cell; melanoma; lymphoma; carcinoma; sarcoma; multiple myeloma; leukaemia.
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                      100.0%; Score 23; DB 4; Length 8; 25.0%; Pred. No. 1.8e+06; ive 6; Mismatches 0; Indels
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                                                                                                                                                                                                                                                                                                AAM10739 standard; peptide; 8 AA
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Ouery Match
Best Local Similarity
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1 FIGPWWKW 8
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RESULT 30

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Vaccine composition for treating or preventing hepatitis B virus (HBV) infection, and/or for stimulating an immune response to HBV, comprises
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                                                                                                                                                                                                          Hepatitis B virus; HBV; epitope; vaccine; HBV infection; hepatitis; virucide; hepatotropic; antiinflammatory.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Livingstone BD;
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25.0%; Pred. No. 1.8e+06;
tive 6; Mismatches 0;
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Kubo RT, Grey HM, Chesnut RW;
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                                                         ABJ08627 standard; peptide; 8 AA.
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                                                                                                                                                                       Hepatitis B virus epitope #2845
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1 FFCLWVYI 8
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ses 2; Conserv
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Celis E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            invention
                                                                                              ABJ08627;
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Matches
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                     RESULT 31
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                                                                                                                                                                                                                                                                                                                                                                                     Immunogenic complex; non-pathogenic multi-component viral particle; javelin; heat shock protein; humoral immunity; cellular immunity; anti-viral immune response; viral infection; hepatitis; influenza; mumps; HIV infection; human immunodeficiency virus; polio; tick-borne encephalitis; ebola virus infection; heat shock binding peptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New heat shock protein-based viral vaccines, useful for enhancing anti-
viral immune response in an organism, particularly as a vaccine for
preventing or ameliorating viral infections, e.g. hepatitis, influenza or
HIV infection.
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                                      ; Score 23; DB 4; Length 8;
Pred. No. 1.8e+06;
6; Mismatches 0; Indels
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                                                                                                                                                                                                                                                                                                                                                      Heat shock binding peptide #2 useful as javelin peptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure; Page 9; 75pp; English.
                                                                                                                                                                                                                                            AAU80566 standard; peptide; 8 AA.
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                                  100.0%;
ilarity 25.0%; I
Conservative 6
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               1 FXXXWXXX 8
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Best Local Similarity
Matches 2; Conserv
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1 FVNQWSVN
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Sequence 8 AA;
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number of epitopes non-covalently joined to a heat shock protein (HSP) by a tethering molecule referred to as javelin which has affinity for the HSP under physiological conditions, where the epitopes are covalently joined to the tethering molecule and one epitope is major histocompatability complex class I (HHC) and the other MHC class II. The antigenic complex is used to induce immune responses directed towards the treatment or prevention of infectious diseases and malignancies. The present sequence is a javelin peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The invention discloses a polypeptide monobody, which binds selectively to human alphavbeta3 integrin (CD51/CD61), comprising at least two human fibronectin (Fn)3 beta-strand domain sequences with a loop region sequence linked between adjacent beta-strand domain sequences and, optionally, an N-terminal tail of at least 2 amino acids, a C-terminal tail of at least 2 amino acids or both. The monobody is derived from the tenth fibronectin type III domain (FNfn10) which binds alphavbeta3 integrin and can modulate its activity. Alphavbeta3 integrin is a cell surface adhesion receptor involved in normal cell growth and survival and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human; monobody; alphavbeta3; integrin; CD51; CD61; Fn3; fibronectin 3; beta-strand; tenth fibronectin type III domain; FNfn10; cell surface adhesion receptor; growth; survival; oncogenesis; RGD; for loop; antagonist; tumnor; osteoporosis; Paget's disease; humoral hypercalcaemia of malignancy; angiogenesis; retinopathy; arthritis; periodontal disease; psoriasis; smooth muscle cell migration; viral infection; fungal infection; bacterial infection; cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New alpha-v-beta3 integrin-binding polypeptide monobodies, useful for treating or preventing e.g. tumor metastasis, osteoporosis, Paget's disease, humoral hypercalcemia of malignancy, or viral, fungal or
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Pred. No. 1.8e+06;
6; Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABG72769 standard; peptide; 8 AA.
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                                                                                                                                                                                                                                                            100.08;
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1 FWGLWPWE 8
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Best Local Similarity
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                                                                                                                                                                                                                     Sequence 8 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A new antigenic complex comprising epitopes non-covalently joined to a heat shock protein by a molecular tether designated a javelin are useful to treat or prevent infectious disease or malignancy.
                                                                                                                                                                                                                                                      Vaccine composition for treating or preventing hepatitis B virus (HBV) infection, and/or for stimulating an immune response to HBV, comprises
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Antigenic complex; epitope; heat shock protein; HSP; tether; javelin; major histocompatability complex; MHC; therapy; immune response;
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              08-SEP-2000; 2000WO-US024802
                                                    08-SEP-2000; 2000WO-US024802
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                                                                                       (EPIM-) EPIMMUNE INC (SETT/) SETTE A.
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Kubo RT, (
                                                                                                                                                                                                                                                                                              HBV peptide epitope.
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MAYHEW M.
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1 FFCLWVYI 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 8 AA;
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                                                                                                                                                    Sette A,
Celis E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                             invention
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(HOEM/) 1
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Matches
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AAE13438
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in large scale in bacteria. The polypeptide monobody is useful for in large scale in bacteria. The polypeptide monobody is useful for inhibiting fantagonist) the activity of alphavbeta3 integrin. The polypeptide monobody or its conjugate comprising the polypeptide monobody or its conjugate comprising the polypeptide monobody conjugated to a chemotherapeutic agent, a contrasting agent or an organic chelating agent, is useful for treating, preventing or tumour metastasis, solid tumour growth, osteoporosis, pager's disease, humorah hypercalcaemia of malignancy, angiogenesis, retinopathy, arthritis, periodontal disease, psoriasis, smooth muscle cell migration, viral infection, fungal infection, bacterial infection and cancerous or precancerous conditions. Administration is carried out by contacting one cells expressing alphavbeta3 integrin with the polypeptide monobody to inhibit the activity of alphavbeta3 integrin on the cells.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human; apolipoprotein C-III; ApoCIII; epitope; atherosclerotic plaque;
   an RGD sequence in the
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Pred. No. 1.8e+06;
6; Mismatches 0;
   to oncogenesis. FNfn10 includes
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25.0%; F
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Best Local Similarity 25.0
Matches 2; Conservative
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contribute
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ABP98084
ID ABP98084
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The present invention describes a modified Cry protein (1) that is sensitive to pepsin and comprises at least one additional pepsin cleavage site (PCS). Also described: (a) increasing pepsin sensitivity of Cry proteins by incorporating at least one axtra PCS; (b) polynucleotides (II) that encode (I); (c) chimeric genes (CG) that contain a promoter. (II) that encode (I); (d) expression or transformed with (III), also, where contains CG; (e) host organism (IV) transformed with (III), also, where the organism is a plant, its parts and seeds; (f) production of (I) by growing (IV); and (g) mono- or polyclonal antibodies (Ab) directed (G growing (IV); and (g) mono- or polyclonal antibodies (Ab) directed (II) by companies (I). (I) has insecticide activity. (I) can be used as consecticides, particularly where expressed in transgenic plants. (I) are sensitive to enzymes in the digestive tract of mammals, so do not persist for use, in foods, of seeds containing CY proteins). Extra PCS do not contenes increase degradation in the digestive tract of insects, so have no effect on insecticidal activity. ABV93150 to ABV93999 and ABP67997 to ABP68308 cry
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                                                                                                                                                                                                                                                                                                                                Bacillus thuringiensis; insecticide; toxin; Cry; pepsin cleavage site;
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                 ; Score 23; DB 6; Length 8;
Pred. No. 1.8e+06;
6; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                 Bacillus thuringiensis toxin Cry related peptide CrylAg.
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             100.0%;
25.0%; F
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Query Match
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Best Local Similarity 25.u.,
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1 FSEFWDLD
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                                                                                                                                                                                                                                                                                                                                                   pepsin; PCS
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The present invention describes a modified Cry protein (I) that is sensitive to pepsin and comprises at least one additional pepsin cleavage site (PCS). Also described: (a) increasing pepsin sensitivity of Cry proteins by incorporating at least one extra PCS; (b) polynucleotides (II) that encode (I); (c) chimeric genes (CG) that contain a promoter, (d) expression or transformation vector (III) that contains CG; (e) host organism (IV) transformed with (III), also, where the organism is a plant, its parts and seeds; (f) production of (I) by growing (IV); and (g) mono or polyclonal antibodies (Ab) directed against (IV); and (g) mono or polyclonal antibodies (Ab) directed against (IV); and issecticide activity. (I) can be used as sensitive to enzymes in the digestive tract of mammals, so do not persist in the tract (lack of persistence is required by regulatory authorities for use, in foods, of seeds containing CY proteins). Extra PCS do not increase degradation in the digestive tract of insects, so have no effect on insecticidal activity. ABV93450 to ABV93909 and ABP67997 to ABP68308 represent sequences used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New modified Cry protein, useful as insecticide, comprises at least one additional pepsin cleavage site to reduce persistence in mammalian gut.
                   Bacillus thuringiensis; insecticide; toxin; Cry; pepsin cleavage site; pepsin; PCS.
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Bacillus thuringiensis toxin Cry related peptide Cryllb
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                                                                                                                                                                                                                                                                                                                                                                                                                Frutos R;
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                                                                                                           Bacillus thuringiensis.
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1 FGKEWGLS
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                                                                                                                                                                                                                                         Bacillus thuringiensis; insecticide; toxin; Cry; pepsin cleavage site;
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                                                                                                                                                                                              Bacillus thuringiensis toxin Cry related peptide CrylJa.
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                                                           ABP68179 standard; peptide; 8 AA
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                                                                                                                                                                                                                                                                                                            Bacillus thuringiensis.
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                                                                                                                                                                                                                                                                                                                                                                                   FR2822157-A1.
                                                                                                                                                   08-JAN-2003
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                                                                                                                                                                                                                                                                   pepsin; PCS
                                                                                                                                                                                                                                                                                                                                         Synthetic.
                                                                                                      ABP68179;
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RESULT 38 ABP68175

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                                                                                                                                                                                                                                                 The present invention describes a modified Cry protein (1) that is aensitive to pepsin and comprises at least one additional pepsin cleavage stie (FCS). Also described: (a) increasing pepsin sensitivity of Cry proteins by incorporating at least one extra PCS; (b) polynucleotides (II) that encode (I); (c) chimeric genes (CG) that contain a promoter, (II) that encode (I); (d) expression or transformation vector (III) that contains CG; (e) host organism (IV) transformed with (III), also, where contains CG; (e) host organism (IV) transformed with (III), also, where the organism is a plant, its parts and seeds; (f) production of (I) by growing (IV); and (g) mono- or polyclonal antibodies (Ab) directed against (I). (I) has insecticide activity. (I) can be used as insecticides, particularly where expressed in transgenic plants. (I) are sensitive to enzymes in the digestive tract of mammals so do not persist in the tract (lack of persistence is required by regulatory authorities for use, in foods, of seeds containing Cry proteins). Extra PCS do not increase degradation in the digestive tract of insectes, so have no effect on insecticidal activity. ABV93450 to ABV93399 and ABB67997 to ABV93450 on insection
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                                                                                                                                                                                New modified Cry protein, useful as insecticide, comprises at least one additional pepsin cleavage site to reduce persistence in mammalian gut.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; Score 23; DB 6; Length 8; 25.0%; Pred. No. 1.8e+06; Live 6; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bacillus thuringiensis toxin Cry related peptide CrylAb.
                                                                                                                                                                                                                         Example 4; Page 37; 134pp; French.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABP68151 standard; peptide; 8 AA.
                                                                                               (AVET ) AVENTIS CROPSCIENCE SA.
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                                       19-MAR-2001; 2001FR-00003691.
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                                                                                                                          Rang
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1 FGERWGLT 8
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The present invention describes a modified Cry protein (I) that is ensitive to pepsin and comprises at least one additional pepsin cleavage sensitive to pepsin and comprises at least one additional pepsin cleavage site (PCS). Also described: (a) increasing pepsin sensitivity of Cry proteins by incorporating at least one extra PCS; (b) polynucleotides (II) that encode (I); (c) chimeric genes (CG) that contain a promoter, (II) that encode (I); (d) expression or transformation vector (III) that contains CG; (e) host organism (IV) transformed with (III), also, where CC contains (IV) and (g) mono- or polyclonal antibodies (Ab) directed against (I). (I) has insecticide activity. (I) can be used as insecticides particularly where expressed in transgenic plants. (I) are sensitive to enzymes in the digestive tract of mammals, so do not persist in the tract (lack of persistence is required by regulatory authorities (in the tract (lack of persistence is required by regulatory authorities (or use, in foods, of seeds containing Cry proteins). Extra PCS do not increase degradation in the digestive tract of insectic, so have no effect on insecticidal activity. ABV33450 to ABV83309 and ABP67997 to ABV8308 con represent sequences used in the exemplification of the present invention
                                                                                                                                                                                                                                                  comprises at least one
                                                                                                                                                                                                                                                                                                           additional pepsin cleavage site to reduce persistence in mammalian gut.
                                                                                                                                                                                                                                     New modified Cry protein, useful as insecticide,
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Frutos R;
Freyssinet G, Rang C,
                                                                                                                  WPI; 2003-002439/01
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Search completed: October 19, 2005, 15:40:41

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100.0%; Score 23; DB 6; Length 8; 25.0%; Pred. No. 1.8e+06; ive 6; Mismatches 0; Indels

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US-08-922-048-144
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US-08-923-933-44-144
US-08-923-933-44-144
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(c) 1993 - 2005 Compugen Ltd.
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US-08-469-260A-252
US-08-488-446-252
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US-09-780-070-13
US-09-794-529B-4
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1-681C-152 Sequence 12 1-681C-153 Sequence 12 1-681C-155 Sequence 12 1-681C-156 Sequence 12 1-681C-156 Sequence 12 1-681C-156 Sequence 12 1-681C-159 Sequence 12 1-681C-161 Sequence 12 1-681C-161 Sequence 12 1-681C-161 Sequence 12 1-681C-161 Sequence 12	1-681C-163 Sequence 16 1-681C-164 Sequence 16 1-681C-165 Sequence 16 1-276-1 Sequence 17 1-276-1 Sequence 17 1-276-1 Sequence 17 1-276-1 Sequence 17 3-794-25 Sequence 17 9-043D-396 Sequence 17 Sequence 17	9-043D-907 Sequence 907, App 9-043D-1654 Sequence 1654, Ap 8-573 Sequence 1654, App 0-091-46 Sequence 46, Appl 0-091-46 Sequence 46, Appl -06270-134 Sequence 134, App -06270-135 Sequence 135, App -06270-137 Sequence 136, App -06270-139 Sequence 139, App -06270-140 Sequence 139, App -06270-140 Sequence 141, App	56270-142 56quence 142, App -06270-144 56quence 143, App -06270-144 56quence 144, App -06270-146 56quence 145, App -06270-146 56quence 146, App -06270-147 56quence 148, App -06270-149 56quence 148, App -06270-149 56quence 19, App -970B-10 56quence 19, App -970B-10 56quence 14, Appl -1-011 56quence 14, Appl -1-012 56quence 14, Appl	equence 14, Applications 5, Applications 5, Applications 6, Applications 6, Applications 6, Applications 6, Applications 9, Applications 17, Applications 19, Applications 19, Applications 19, Applications 6, Applications 19, Applications 19, Applications 19, Applications 10, Application
4 US-09-111-681C-152 Sequence IS 4 US-09-111-681C-153 Sequence IS 4 US-09-111-681C-155 Sequence IS 4 US-09-111-681C-155 Sequence IS 4 US-09-111-681C-155 Sequence IS 4 US-09-111-681C-159 Sequence IS 4 US-09-111-681C-161 Sequence IS 4 US-09-111-681C-161 Sequence IS 4 US-09-111-681C-161 Sequence IS 4 US-09-111-681C-162 Sequence IS 4 US-09-111-681C-162 Sequence IS	4 US-09-111-681C-163 Sequence 18 US-09-111-681C-164 Sequence 18 US-09-111-681C-165 Sequence 18 US-09-111-681C-165 Sequence 18 US-09-881-276-11 Sequence 18 US-09-881-276-12 Sequence 19 US-09-428-0828-142 Sequence 18 US-09-253-794-25 Sequence 19 US-09-2539-043D-396 Sequence 29	4 US-09-239-04120-907 Sequence 907, App 4 US-09-239-04310-1654 Sequence 1654, Ap 4 US-09-620-091-46 Sequence 46, Appl 5 PCT-US95-0401134 Sequence 134, App 5 PCT-US96-06270-134 Sequence 134, App 5 PCT-US96-06270-135 Sequence 135, App 5 PCT-US96-06270-136 Sequence 137, App 5 PCT-US96-06270-137 Sequence 138, App 5 PCT-US96-06270-137 Sequence 138, App 5 PCT-US96-06270-139 Sequence 139, App 5 PCT-US96-06270-140 Sequence 139, App 5 PCT-US96-06270-140 Sequence 141, App	FCT-US96-06270-142 Sequence 142, App SPCT-US96-06270-143 Sequence 143, App SPCT-US96-06270-144 Sequence 144, App SPCT-US96-06270-146 Sequence 145, App SPCT-US96-06270-146 Sequence 146, App SPCT-US96-06270-147 Sequence 148, App SPCT-US96-06270-149 Sequence 148, App SPCT-US96-06270-149 Sequence 10, App 10S-08-18-9708-10 Sequence 10, App 3 US-08-86-339-9 Sequence 9, Appl 3 US-08-11-01-9 Sequence 14, Appl 3 US-08-151-011-9 Sequence 14, Appl 3 US-08-151-011-9 Sequence 14, Appl	3 US-08-447-515-14 Sequence 14, Appl 3 US-08-447-515-5 Sequence 5, Appli 3 US-09-186-958-5 Sequence 5, Appli 3 US-09-186-958-6 Sequence 5, Appli 3 US-09-186-958-6 Sequence 6, Appli 3 US-09-186-958-7 Sequence 7, Appli 3 US-09-186-958-9 Sequence 10, Appli 3 US-09-186-958-10 Sequence 19, Appli 3 US-09-186-958-10 Sequence 20, Appli 3 US-09-186-958-10 Sequence 20, Appli 3 US-09-669-271A-5 Sequence 5, Appli 3 US-09-669-271A-5 Sequence 6, Appli 3 US-09-669-271A-6 Sequence 9, Appli 3 US-09-669-271A-10 Sequence 17, Appli 3 US-09-669-271A-10 Sequence 18, Appli 3 US-09-669-271A-10 Sequence 20, Appli 3 US-09-669-271A-20 Sequence 20, Appli 3 US-09-66
0 4 US-09-111-681C-152 Sequence 13 0 4 US-09-111-681C-153 Sequence 13 0 4 US-09-111-681C-155 Sequence 13 0 4 US-09-111-681C-155 Sequence 13 0 4 US-09-111-681C-156 Sequence 13 0 4 US-09-111-681C-159 Sequence 13 0 4 US-09-111-681C-169 Sequence 14 0 4 US-09-111-681C-169 Sequence 14 0 4 US-09-111-681C-160 Sequence 14 0 4 US-09-111-681C-161 Sequence 14	4 US-09-111-681C-163 Sequence 16 US-09-111-681C-164 Sequence 16 US-09-111-681C-165 Sequence 16 US-09-111-681C-165 Sequence 16 US-09-499-052-2 Sequence 16 US-09-881-276-11 Sequence 17 US-09-881-276-12 Sequence 17 US-09-253-794-25 Sequence 17 US-09-253-794-25 Sequence 17 US-09-239-043D-396 Sequence 17 US-09-239	1 US-09-239-043D-907 Sequence 907, App 4 US-09-239-043D-1654 Sequence 1654, Ap 0 4 US-09-498-557-8 Sequence 64, Appli 0 5 VCT-US95-04018-64 Sequence 64, Appl 0 5 PCT-US95-06270-134 Sequence 134, App 0 6 PCT-US96-06270-135 Sequence 135, App 0 7 PCT-US96-06270-136 Sequence 136, App 0 8 PCT-US96-06270-137 Sequence 136, App 0 9 PCT-US96-06270-139 Sequence 138, App 0 1 PCT-US96-06270-139 Sequence 139, App 0 2 PCT-US96-06270-140 Sequence 141, App	5 PCT-US96-06270-142 Sequence 142, App 05 PCT-US96-06270-143 Sequence 143, App 05 PCT-US96-06270-144 Sequence 144, App 06 PCT-US96-06270-145 Sequence 145, App 07 PCT-US96-06270-146 Sequence 146, App 08 PCT-US96-06270-147 Sequence 147, App 08 PCT-US96-06270-149 Sequence 147, App 10 US-08-318-970B-10 Sequence 147, App 11 US-08-318-970B-10 Sequence 10, Appl 12 US-08-486-832-9 Sequence 10, Appl 13 US-08-151-011-9 Sequence 14, Appl 14 US-08-151-011-9 Sequence 14, Appl 15 US-08-151-011-9 Sequence 14, Appl 16 US-08-151-011-9 Sequence 14, Appl 17 US-08-147-506-14 Sequence 14, Appl	US-08-447-515-14 US-09-186-958-5 US-09-186-958-5 US-09-186-958-5 US-09-186-958-6 US-09-186-958-6 US-09-186-958-6 US-09-186-958-8 US-09-186-958-8 US-09-186-958-9 US-09-186-958-10 US-09-669-271A-4 US-09-669-271A-4 US-09-669-271A-7 US-09-669-271A-8 US-09-669-271A-9 US-09-669-271A-10 US-09-669-271A-10 US-09-669-271A-11 US-09-669-271A-11 US-09-669-271A-11 US-09-669-271A-11 US-09-669-271A-11 US-09-669-271A-11 US-09-669-271A-12 US-09-669-271A-13 US-09-669-271A-14 US-09-669-271A-17 US-09-669-271A-19 US-09-669-271A-20 US-09-669-27
00.0 10 4 US-09-111-681C-15.2 Sequence 10.0 0.0 10 4 US-09-111-681C-15.3 Sequence 10.0 0.0 10 4 US-09-111-681C-15.5 Sequence 10.0 0.0 10 4 US-09-111-681C-15.6 Sequence 10.0 0.0 10 4 US-09-111-681C-15.6 Sequence 10.0 0.0 10 4 US-09-111-681C-15.9 Sequence 10.0 0.0 10 4 US-09-111-681C-15.9 Sequence 10.0 0.0 10 4 US-09-111-681C-16.9 Sequence 10.0 0.0 10 4 US-09-111-681C-16.1 Sequence 10.0 0.0 10.0 10.0 0.0 0.0 0.0 0.0 0.0	00.0 10 4 US-09-111-681C-163 Sequence 10.0 10 4 US-09-111-681C-164 Sequence 10.0 10 4 US-09-111-681C-165 Sequence 10.0 10 4 US-09-99-052-2 Sequence 10.0 10 4 US-09-881-276-11 Sequence 11.0 10 4 US-09-881-276-12 Sequence 12.0 10 4 US-09-881-376-12 Sequence 12.0 10 4 US-09-253-794-25 Sequence 13.0 10 4 US-09-253-794-25 Sequence 13.0 10 4 US-09-239-043D-396 Sequence 23.0 10 1 US-09-239-043D-396 Sequence 23.0 10 US-09-239-043D-396 Sequence 23.0 US-09-239-043D-3	00.0 10 4 US-09-239-043D-907 Sequence 907, App O0.0 10 4 US-09-239-043D-1654 Sequence 1654, Ap Sequence 1654, Ap Sequence 1654, Ap O0.0 10 4 US-09-620-091-46 Sequence 46, Appl O0.0 10 5 PCT-US96-06270-134 Sequence 134, App O0.0 10 5 PCT-US96-06270-134 Sequence 135, App O0.0 10 5 PCT-US96-06270-136 Sequence 135, App O0.0 10 5 PCT-US96-06270-137 Sequence 137, App O0.0 10 5 PCT-US96-06270-138 Sequence 138, App O0.0 10 5 PCT-US96-06270-139 Sequence 139, App O0.0 10 5 PCT-US96-06270-139 Sequence 139, App O0.0 10 5 PCT-US96-06270-140 Sequence 139, App O0.0 10 5 PCT-US96-06270-140 Sequence 141, App	00.0 10 5 PCT-US96-06270-142 Sequence 142, App 00.0 10 5 PCT-US96-06270-143 Sequence 143, App 00.0 10 5 PCT-US96-06270-144 Sequence 144, App 00.0 10 5 PCT-US96-06270-146 Sequence 146, App 00.0 10 5 PCT-US96-06270-146 Sequence 146, App 00.0 10 5 PCT-US96-06270-147 Sequence 148, App 00.0 10 5 PCT-US96-06270-149 Sequence 148, App 00.0 11 1 US-08-10 Sequence 10, App 00.0 11 1 US-08-10 Sequence 10, Appl 00.0 11 3 US-08-11 Sequence 14, Appl 00.0 11 3 US-08-11-011-9 Sequence 14, Appl 00.0 11 3 US-08-447-506-14 Sequence 14, Appl 00.0 11 3 US-08-447-506-14 Sequence 14, Appl	1 3 US-08-447-515-14 Sequence 14, Appl 1 3 US-09-124-785-5 Sequence 5, Appl 1 3 US-09-186-958-5 Sequence 5, Appl 1 3 US-09-186-958-5 Sequence 6, Appl 1 3 US-09-186-958-6 Sequence 6, Appl 1 3 US-09-186-958-6 Sequence 6, Appl 1 3 US-09-186-958-9 Sequence 7, Appl 1 3 US-09-186-958-10 Sequence 10, Appl 1 3 US-09-186-958-10 Sequence 10, Appl 1 3 US-09-186-958-10 Sequence 11, Appl 1 3 US-09-186-958-10 Sequence 19, Appl 1 3 US-09-186-958-10 Sequence 19, Appl 1 3 US-09-186-958-10 Sequence 19, Appl 1 3 US-09-669-271A-6 Sequence 6, Appl 1 3 US-09-669-271A-7 Sequence 6, Appl 1 3 US-09-669-271A-7 Sequence 17, Appl 1 3 US-09-669-271A-1 Sequence 19, Appl 1 3 US-09-669-271A-1 Sequence 20, Appl 1 3 US-09-669-271A-1 Sequence 20, Appl 1 3 US-09-669-271A-1 Sequence 20, Appl 1 3 US-09-669-271A-20 Sequence 20, Appl 20, Appl 3 US-09-669-271A-20 Sequence 20, Appl 3 US

equence 100 equence 100 equence 100 equence 111 equence 112 equence 112 equence 113 equence 114	Sequence 166, App Sequence 167, App Sequence 167, App Sequence 173, App Sequence 171, App Sequence 172, App Sequence 173, App Sequence 174, App Sequence 175, App Sequence 181, App Sequence 181, App Sequence 181, App Sequence 181, App Sequence 182, App Sequence 181, App Sequence 183, App Sequence 184, App Sequence 185, App Sequence 187, App Sequence 187, App Sequence 188, App Sequence 189, App Sequence 189	
US-08-922-048-10 US-08-922-048-10 US-08-922-048-11 US-08-922-048-11 US-08-922-048-11 US-08-922-048-11 US-08-922-048-11 US-08-922-048-11 US-08-922-048-11 US-08-922-048-11	US-08-922-048-166 US-08-922-048-166 US-08-922-048-166 US-08-922-048-169 US-08-922-048-169 US-08-922-048-169 US-08-922-048-170 US-08-922-048-171 US-08-922-048-171 US-08-922-048-173 US-08-922-048-173 US-08-922-048-174 US-08-9111-681C-124 US-08-9111-681C-184	
23 100.0 23 100.0 23 100.0 23 100.0 23 100.0 23 100.0 23 100.0 23 100.0	23 1 100 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
	Applii Applii	
Sequence 26 Sequence 26 Sequence 1, Sequence 1, Sequence 35 Sequence 1, Sequence 1, Sequence 1, Sequence 7,	19-2 Sequence 2, 17-105 Sequence 2, 17-105 Sequence 103, 17-105 Sequence 103, 17-105 Sequence 103, 17-106 Sequence 104, 17-106 Sequence 105, 17-106 Sequence 107, 17-106 17	
3 1 US-08-487-56 3 2 US-08-486-33 3 2 US-08-486-33 3 2 US-08-806-31 3 3 US-08-911-75 3 3 US-08-702-05 3 3 US-08-702-05 3 3 US-08-33-44	13 4 US-09-222-779- 13 4 US-09-081-975- 13 4 US-09-081-975- 13 4 US-09-081-975- 13 4 US-09-081-975- 13 4 US-10-158-847- 13 4 US-10-158-847- 13 4 US-10-158-847- 13 4 US-10-158-847- 13 5 US-08-556-818- 13 6 US-09-556-818- 13 6 US-09-556-818- 13 7 US-08-556-818- 13 8 US-08-533-1384- 14 US-08-433-13184- 15 US-08-433-13184- 16 US-08-433-13184- 17 US-08-433-13184- 18 US-08-433-13184- 19 US-08-433-13184- 10 US-08-433-13184- 10 US-08-433-13184- 10 US-08-433-13184- 10 US	
23 100. 23 100. 23 100. 23 100. 23 100. 23 100. 23 100.	256 267 267 267 267 267 268 273 269 273 274 275 277 277 278 279 279 289 279 289 289 289 289 289 289 289 28	

Sequence 21, Appl Sequence 22, Appl Sequence 21, Appl Sequence 21, Appl	equence 9,	equence 247	equence 2,	equence 16,	equence 17,	equence 19,	equence 3,	16,	17,0	4.4	29	equence 16	4, 6	0 9	10,	9,1	2 5	52	equence 54,	equence 7,	equence 31, equence 52,	equence 295	equence 136	equence 140	equence 141	equence 53,	equence 10,	equence 88,	equence 10, equence 295	equence 51,	equence 52, equence 4.	equence 6,	equence 1,	equence 2,	equence 3,	equence 6,	equence 20,	equence 22,	ance 51,	ance 5,	equence 2,	ance 43,	ance 5,	ence 19	ence 19,	equence 1, equence 1.	equence 32,	equence 51,	equence 330	equence 1,	equence 11
US-09-035-686-21 US-09-035-686-22 US-09-224-480-51 US-08-702-054B-21	US-09-217-352-9	US-09-009-953-247	US-08-487-795A-2 US-08-487-795A-3	US-08-487-795A-16	US-08-487-795A-17	US-U8-48/-/95A-19 IIS-08-121-105B-2	US-08-121-105B-3	US-08-121-105B-16	US-08-121-105B-17	US-08-121-1035-13 US-09-081-975-24	US-09-461-325-295	US-09-914-259-165	US-08-634-332A-64	US-08-634-332A-69	US-09-441-992-10	US-09-441-992-49	US-09-441-992-50 US-09-441-992-51	US-09-441-992-52	US-09-574-749B-54	US-09-644-442-7	US-09-15/-689-51 US-09-157-689-52	012-542-295	428-082B-13	US-09-428-0825-133	428-082B-14	US-09-689-097-53	204-730B-10	US-09-142-524D-88	US-US-316-393-10 US-10-115-123-295	US-09-953-510-51	US-09-953-510-52 US-09-581-472B-4	US-09-732-384-6	PCT-US93-08699-1 PCT-US94-02465-51	PCT-US94-10356-2	PCT-US94-10356-3	PCT-US94-10356-6 PCT-US94-10356-7	PCT-US94-10356-20	PCT-US94-10356-22	PCI-US95-00498-51 PCT-US95-00656-51	US-07-959-946-5	US-08-079-051-2	US-U8-U//-/9/A-43	US-08-333-577-5	US-08-629-291A-19	US-08-658-335B-19	US-08-930-776-1 US-09-149-303-1	US-09-171-705-32	US-09-093-539-51	US-09-009-933-39 US-09-009-953-230	US-09-458-745-1	US-09-330-914A-11
15 3 3 15 3 15 3 15 3 3 3 3 3 3 3 3 3 3	יט יט	വം	ഗഗ	ហ	so i	n u	'n	S	ហេវ	വ	'n	w r	տ տ	ո տ	, w	ı,	വ	'n	ıcı	n n	ດເດ	SO I	n n	າເກ	S I	n n	n un	ın ı	വ	ហ	n ro	. L	ഗഗ		ın ı	n r	ט ני	ın ı	വ	9	9	ט ס	o	9	۰۰	ט ס	9	y w	ο φ	9	o u
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								_																																											
Sequence 500 Sequence 10, Sequence 33, Sequence 10,	Sequence 115	Sednence	Sequence 508 Seguence 68.	Sequence 87,	Sequence 508, App	Segmence 102, App	Sequence 104, App	Sequence 105, App	Sequence 106, App	Sequence 109, App	Sequence 109, App	Sequence 110, App	Sequence 111, App	Sequence 113, App	Sequence 114, App	Sequence 115	Sequence 117	Sequence 165	Sequence 166	Sequence 167	Sequence 169, App	Sequence 170, App	Sequence 171	Sequence 173, App	Sequence 174, App	Sequence 175, App	Sequence 177, App	Sequence 178, App	Sequence 1/3	Sequence 51,	Sequence 133	Sequence 22,	Sequence 51,	ence 51,	ence 1,	ance 5,	ence 51,	ence 10,	ence 1,	ence 22,	ence 112	ance y,	ance 22, Appl	ence 10,	ence 49,	ance 50,	ance 52,	ence 10,	ance 16,	ence 51,	ance 22, Appl
ance 500 ance 10, ance 33,	58-847-115 Sequence 115 58-847-116 Sequence 116	58-847-119 Sequence 115	112-542-508 Sequence 508 28-082B-68 Sequence 68	20-091-87 Sequence 87,	15-123-508 Sequence 508, App	6-06270-103 Segmence 102, App	6-06270-104 Sequence 104, App	6-06270-105 Sequence 105, App	6-06270-106 Sequence 106, App 6-06270-107 Segmence 107 App	6-06270-10/ Sequence 108, App	6-06270-109 Sequence 109, App	6-06270-110 Seguence 110, App	6-06270-111 Sequence 111, App 6-06270-112 Sequence 112, App	6-06270-113 Sequence 113, App	6-06270-114 Sequence 114, App	6-06270-115 Sequence 115	6-06270-115 Sequence 117	6-06270-165 Sequence 165	6-06270-166 Sequence 166	6-06270-167 Sequence 167	6-06270-169 Sequence 169, App	6-06270-170 Sequence 170, App	6-06270-171 Sequence 171 6-06270-172 Sequence 173	6-06270-173 Sequence 173, App	6-06270-174 Sequence 174, App	16-06270-175 Sequence 175, App 16-06270-176 Sequence 175, App	6-06270-177 Sequence 177, App	6-06270-178 Sequence 178, App	6-06270-179 Sequence 173	11-611A-51 Sequence 51,	18-025A-139 Sequence 133 72-783-51 Sequence 51.	Sequence 22,	72-105-51 Sequence 51, 48-160-2 Sequence 2	06-473A-51 Sequence 51,	77-660A-1 Sequence 1,	77-660A-6 Sequence 5,	09-762-51 Sequence 51,	(25-691-10 Sequence 10,	24-95/-1 Sequence 1, 24-957-21 Sequence 21,	24-957-22 Sequence 22,	87-568-112 Sequence 112	21-803-9 Sequence 9, 85-4452-51 Semience 51	00-644-22 Sequence 22, Appl	53-257A-10 Sequence 10,	53-25/A-49 Sequence 49,	53-25/A-50 Sequence 50, 53-257A-51 Sequence 51,	53-257A-52 Sequence 52,	192-345B-10 Sequence 10,	.65-042-16 Sequence 15,	.57-162-51 Sequence 51,	147-844A-22 Sequence 22, Appl
01-322-308 Sequence 500 110-833-10 Sequence 10, 132-2308-33 Sequence 10, 29-8558-10 Sequence 10,	4 4 US-10-158-847-115 Sequence 115	4 4 US-10-158-847-119 Sequence 119	4 4 US-10-012-542-508 Sequence 508 4 4 US-09-428-082B-68 Sequence 68.	4 4 US-09-620-091-87 Sequence 87,	4 4 US-10-115-123-508 Sequence 508, App	4 5 PCT-US96-06270-102 Sequence 102, App	4 5 PCT-US96-06270-104 Sequence 104, App	4 5 PCT-US96-06270-105 Sequence 105, App	4 5 PCT-US96-06270-106 Sequence 106, App 4 5 PCT-US96-06270-107 Semisors 107 App	4 5 PCT-US96-06270-108 Sequence 108, App	4 5 PCT-US96-06270-109 Sequence 109, App	4 5 PCT-US96-06270-110 Sequence 110, App	4 5 PCT-US96-06270-111 Sequence 111, App 4 5 PCT-US96-06270-112 Semience 112, App	4 5 PCT-US96-06270-113 Sequence 113, App	4 5 PCT-US96-06270-114 Sequence 114, App	4 5 PCT-US96-06270-115 Sequence 115	4 5 PCI-US96-062/0-116 Sequence 110 4 5 PCI-US96-06270-117 Sequence 117	4 5 PCT-US96-06270-165 Sequence 165	4 5 PCT-US96-06270-166 Sequence 166	4 5 PCI-US96-06270-167 Sequence 167 4 5 PCH-IRS66-06270-168 Sequence 167	4 5 PCT-US96-06270-169 Sequence 169, App	4 5 PCT-US96-06270-170 Sequence 170, App	4 5 PCT-US96-06270-171 Sequence 171 4 5 PCT-US96-06270-172 Sequence 172	4 5 PCT-US96-06270-173 Sequence 173, App	4 5 PCT-US96-06270-174 Sequence 174, App	4 5 PCT-US96-06270-175 Sequence 175, App 4 5 PCT-US96-06270-176 Semience 176 App	4 5 PCT-US96-06270-177 Sequence 177, App	4 5 PCT-US96-06270-178 Sequence 178, App	4 5 PCT-US96-062/0-1/9 Sequence 1/3	5 1 US-08-311-611A-51 Sequence 51,	5 1 US-08-218-025A-139 Sequence 133 5 1 US-08-372-783-51 Sequence 51,	5 1 US-08-056-200-22 Sequence 22,	5 1 US-08-372-105-51 Sequence 51, 5 1 US-08-148-160-2 Semience 2	5 1 US-08-306-473A-51 Sequence 51,	5 1 US-08-277-660A-1 Sequence 1,	5 1 US-08-277-660A-6 Segmence 5.	5 1 US-08-209-762-51 Sequence 51,	5 1 US-08-625-691-10 Sequence 10,	5 1 US-08-424-957-1 5 1 US-08-424-957-21 Sequence 21,	5 1 US-08-424-957-22 Sequence 22,	5 1 US-08-487-568-112 Sequence 112	5 2 US-US-821-803-9 Sequence 9, 5 2 US-08-485-4451-51 Sequence 51	5 2 US-08-800-644-22 Sequence 22, Appl	5 2 US-08-553-257A-10 Sequence 10,	5 Z US-08-553-25/A-49 Sequence 49,	5 2 US-08-553-257A-51 Sequence 50,	5 2 US-08-553-257A-52 Sequence 52,	5 3 US-08-292-345B-10 Sequence 10, 5 3 US-09-119-263-41	5 3 US-09-165-042-16 Sequence 16,	5 3 US-08-657-162-51 Sequence 51,	5 3 US-08-847-844A-22 Sequence 22, Appl
4 4 US-09-129-855A-10 Sequence 300	100.0 14 4 US-10-158-847-115 Sequence 115 100.0 14 4 US-10-158-847-116 Sequence 116	100.0 14 US-10-158-847-119 Sequence 119	100.0 14 4 US-10-012-542-508 Sequence 508 100.0 14 4 US-09-428-082B-68 Sequence 68.	100.0 14 4 US-09-620-091-87 Sequence 87,	100.0 14 4 US-10-115-125-508 Sequence 508, App	100.0 14 5 PCT-US96-062/0-1102 Sequence 102, App.	100.0 14 5 PCT-US96-06270-104 Sequence 104, App	100.0 14 5 PCT-US96-06270-105 Sequence 105, App	100.0 14 5 PCT-US96-06270-106 Sequence 106, App	100.0 14 5 PCT-US96-06270-108 Sequence 108, App	100.0 14 5 PCT-US96-06270-109 Sequence 109, App	100.0 14 5 PCT-US96-06270-110 Sequence 110, App	100.0 14 5 PCT-US96-06270-111 Sequence 111, App 100.0 14 5 PCT-US96-06270-112 Sequence 112, App	100.0 14 5 PCT-US96-06270-113 Sequence 113. App	100.0 14 5 PCT-US96-06270-114 Sequence 114, Apr	100.0 14 5 PCT-US96-06270-115 Sequence 115	100.0 14 5 PCI-US96-062/0-116 Sequence 117	100.0 14 5 PCT-US96-06270-165 Sequence 165	100.0 14 5 PCT-US96-06270-166 Sequence 166	100.0 14 5 PCT-US96-06270-167 Sequence 167	100.0 14 5 PCT-US96-06270-169 Sequence 169, App	100.0 14 5 PCT-US96-06270-170 Sequence 170, App	100.0 14 5 PCT-US96-06270-171 Sequence 171 100.0 14 5 PCT-US96-06270-172 Sequence 173	100.0 14 5 PCT-US96-06270-173 Sequence 173, App	100.0 14 5 PCT-US96-06270-174 Sequence 174, App	100.0 14 5 PCT-US96-06270-175 Sequence 175, App 100.0 14 5 PCT-US96-06270-176 Sequence 176 App	100.0 14 5 PCT-US96-06270-177 Sequence 177, App	100.0 14 5 PCT-US96-06270-178 Sequence 178, App	100.0 14 5 PCT-US96-06270-179 Sequence 173	100.0 15 1 US-08-311-611A-51 Sequence 51,	100.0 15 1 US-08-218-025A-139 Sequence 133	100.0 15 1 US-08-056-200-22 Sequence 22,	100.0 15 1 US-08-372-105-51 Sequence 51, 100.0 15 1 US-08-148-160-2 Semience 2.	100.0 15 1 US-08-306-473A-51 Sequence 51,	100.0 15 1 US-08-277-660A-1 Sequence 1,	100.0 15 1 US-08-277-660A-5 Seguence 5,	100.0 15 1 US-08-209-762-51 Sequence 51,	100.0 15 1 US-08-625-691-10 Sequence 10,	100.0 15 1 US-08-424-957-1 Sequence 1,	100.0 15 1 US-08-424-957-22 Sequence 22,	100.0 15 1 US-08-487-568-112 Sequence 112	100.0 15 2 US-08-821-803-9 Sequence 9,	100.0 15 2 US-08-800-644-22 Sequence 22, Appl	100.0 15 2 US-08-553-257A-10 Sequence 10,	100.0 15 2 US-08-553-257A-49 Sequence 49,	100.0 15 2 US-08-553-257A-51 Sequence 51,	100.0 15 2 US-08-553-257A-52 Sequence 52,	100.0 15 3 US-08-292-345B-10 Sequence 10,	100.0 15 3 US-09-165-042-16 Sequence 16,	100.0 15 3 US-08-657-162-51 Sequence 51,	100.0 15 3 US-08-847-8448-22 Sequence 22, Appl

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2 US-08-746-257A-5 2 US-08-488-359-123 3 US-08-871-355A-238 3 US-08-990-823-88 3 US-08-990-823-89 3 US-08-990-823-89 3 US-09-201-945-238 3 US-09-315-3048-814 4 US-08-487-795A-15 4 US-08-487-795A-18	4 US-08-121-105B-18 4 US-08-475-399A-123 4 US-09-177-496D-226 4 US-09-834-784-814 4 US-09-8477-135A-88 4 US-09-477-135A-88 4 US-09-477-135A-814 4 US-09-428-082B-209 4 US-09-428-082B-209 4 US-08-077-255A-123 4 US-08-077-255A-123 5 PCT-US94-05684-7 5 PCT-US94-10356-11 5 PCT-US94-10356-11 6 US-08-218-025A-3 7 US-08-218-025A-3 1 US-08-218-025A-3 1 US-08-218-025A-3 1 US-08-218-025A-3 1 US-08-218-025A-3 1 US-08-218-025A-3	2 US-08-448-6054A-24 2 US-08-944-915-125 2 US-08-944-905-36 3 US-08-940-095-2199 3 US-08-940-093-1199 3 US-08-940-093-1199 3 US-08-940-093-124 3 US-08-940-096-129 3 US-08-940-096-129 3 US-08-940-096-129 3 US-08-940-096-129 3 US-08-134-075-24 3 US-08-139-146 3 US-08-1465-719-129 3 US-09-465-719-24 3 US-09-453-688-249 3 US-09-453-688-199 3 US-09-453-688-199 3 US-09-453-688-199 3 US-09-453-688-199 3 US-09-453-688-199 4 US-08-940-136-1284-8 4 US-08-940-136-136-139	4 US-08-644-332A-9 4 US-08-644-332A-11 4 US-08-644-332A-11 4 US-08-644-332A-12 4 US-08-643-332A-24 4 US-08-634-332A-25 4 US-08-634-332A-65 4 US-08-634-332A-65 4 US-08-634-332A-65 4 US-09-634-81147 4 US-09-834-841-1199 4 US-09-453-841-1199 4 US-09-453-841-224 5 US-09-168-847-78 5 US-09-168-847-78 6 US-10-158-847-120
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-081-975-23 Sequence 23 -790-230-51 Sequence 51 -413-23-3 Sequence 51 -690-454-88 Sequence 30 -311-784A-308 Sequence 30 -110-496D-285 Sequence 28 -546-013-72 Sequence 89 -620-091-89 Sequence 89 -854-133-587 Sequence 44 -854-133-587 Sequence 44	241 345 - 20 Sequence 20 541 345 - 20 Sequence 20 541 - 345 - 35 Sequence 3 Sequence 3 Sequence 3 Sequence 3 Sequence 3 Sequence 3 Sequence 4 Sequence 5 S	241 - 345 - 50 Sequence 51 - 341 - 345 - 50 Sequence 51 Sequence 62 Sequence 62 Sequence 63 Sequence 64 Sequence 64 Sequence 64 Sequence 64 Sequence 65 Sequence 67 Sequence 67 Sequence 67 Sequence 67 Sequence 67 Sequence 67 Sequence 71 Sequence 71 Sequence 72 Sequence 73 Sequence 74 Sequence 74 Sequence 75 Sequence 76 Sequence 76 Sequence 77 Sequence 77 Sequence 77 Sequence 77 Sequence 77 Sequence 81 Sequence 91 Sequence 9	241.345-99 Sequence 99 -541.345-100 Sequence 100 -541.345-100 Sequence 100 -541.345-105 Sequence 100 -541.345-106 Sequence 100 -541.345-106 Sequence 100 -541.345-106 Sequence 25, -541.345-106 Sequence 24, -541.345-106 Sequence 24, -541.345-106 Sequence 24, -541.345-106 Sequence 7, -545-562A-64 Sequence 7, -545-562A-64 Sequence 23, -545-562A-64 Sequence 23, -545-562A-64 Sequence 23, -541.345-106 Sequence 23, -5
6 4 US-09-081-975-23 Sequence 23, 6 4 US-09-790-230-51 Sequence 51, 6 4 US-09-690-454-89 Sequence 30, 6 4 US-09-690-454-89 Sequence 30, 6 4 US-09-50-285 Sequence 28, 6 4 US-09-620-091-89 Sequence 89, 6 4 US-09-620-091-45 Sequence 44, 6 US-09-620-091-45 Sequence 54, 6 4 US-09-621-345-4 Sequence 54, 6 4 US-09-631-345-4 Sequence 54	6 4 US-09-541-345-20 Sequence 20 6 4 US-09-541-345-35 Sequence 35 6 4 US-09-541-345-39 Sequence 37 6 4 US-09-541-345-39 Sequence 38 6 4 US-09-541-345-40 Sequence 40 6 4 US-09-541-345-41 Sequence 41 6 4 US-09-541-345-42 Sequence 41 6 4 US-09-541-345-42 Sequence 42 6 4 US-09-541-345-45 Sequence 45 6 4 US-09-541-345-45 Sequence 45 6 4 US-09-541-345-45 Sequence 45 6 4 US-09-541-345-46 Sequence 47 6 4 US-09-541-345-46 Sequence 47 6 4 US-09-541-345-50 Sequence 50 6 4 US-09-541-345-50 Sequence 50	241.345-56 2541.345-57 2541.345-57 2541.345-59 2540ence 59 2541.345-61 2541.345-62 2541.345-63 2540ence 62 2541.345-64 2541.345-68 2541.345-68 2541.345-73 2541.345-74 2541.345-74 2541.345-74 2541.345-89 2540ence 75 2541.345-89 2540ence 89 2541.345-89 2540ence 89 2541.345-99 2540ence 99	6 4 US-09-541-345-99 Sequence 99, 66 4 US-09-541-345-100 Sequence 101 US-09-541-345-100 Sequence 101 US-09-541-345-100 Sequence 101 US-09-541-345-105 Sequence 101 US-09-541-345-105 Sequence 101 US-09-269-1034-105 Sequence 101 US-08-340-1038-43 Sequence 2, 1 US-08-340-1038-43 Sequence 7, 1 US-08-3480-103-138 Sequence 7, 2 US-08-746-283-7 Sequence 2, 2 US-08-746-283-7 Sequence 2, 2 US-08-746-283-7 Sequence 2, 2 US-08-545-562A-64 Sequence 2, 2 US-08-644-64 Sequence 2, 2 US-08-644-64 Seq
100.0 16 4 US-09-081-975-23 Sequence 23 100.0 16 4 US-09-790-230-51 Sequence 51 100.0 16 4 US-09-790-230-51 Sequence 51 100.0 16 4 US-09-690-454-88 Sequence 30 100.0 16 4 US-09-511-784A-308 Sequence 28 100.0 16 4 US-09-546-013-72 Sequence 28 100.0 16 4 US-09-620-091-45 Sequence 44 100.0 16 4 US-09-620-091-45 Sequence 44 100.0 16 4 US-09-541-345-4 Sequence 54 100.0 16 4 US-09-541-345-4 Sequence 54 100.0 16 4 US-09-541-345-4	100.0 16 4 US-09-541-345-20 Sequence 20 100.0 16 4 US-09-541-345-20 Sequence 20 100.0 16 4 US-09-541-345-35 Sequence 37 100.0 16 4 US-09-541-345-39 Sequence 37 100.0 16 4 US-09-541-345-39 Sequence 38 100.0 16 4 US-09-541-345-40 Sequence 40.0 16 4 US-09-541-345-42 Sequence 41.0 10.0 16 4 US-09-541-345-42 Sequence 42.1 100.0 16 4 US-09-541-345-45 Sequence 45.1 100.0 16 4 US-09-541-345-45 Sequence 47.1 100.0 16 4 US-09-541-345-46 Sequence 47.1 100.0 16 4 US-09-541-345-46 Sequence 47.1 100.0 16 4 US-09-541-345-48 Sequence 57.1 100.0 16 4 US-09-541-345-50 Sequence 57.1 100.0 16 4 US-09-541-345-50 Sequence 57.1 100.0 16 4 US-09-541-345-51 Sequence 57.1 100.0 16 4 US-09-541-345-51 Sequence 57.1 100.0 16 4 US-09-541-345-52 Sequence 57.1 100.0 16 4 US-09-541-345-53 Sequence 57.1 100.0 10.0 10.0 10.0 10.0 10.0 10.0	4 US-09-541-345-50 Sequence 50, 64 US-09-541-345-50 Sequence 51, 64 US-09-541-345-59 Sequence 51, 64 US-09-541-345-59 Sequence 51, 64 US-09-541-345-61 Sequence 51, 64 US-09-541-345-61 Sequence 62, 64 US-09-541-345-63 Sequence 63, 64 US-09-541-345-64 Sequence 64, 64 US-09-541-345-79 Sequence 64, 64 US-09-541-345-79 Sequence 71, 64 US-09-541-345-80 Sequence 71, 64 US-09-541-345-81 Sequence 81, 64 US-09-541-345-81 Sequence 81, 64 US-09-541-345-81 Sequence 81, 64 US-09-541-345-81 Sequence 81, 64 US-09-541-345-82 Sequence 81, 64 US-09-541-345-92 Sequence 91, 64 US-09-541-345-93 Sequence 91, 64 US-09-541-345-92 Sequence 91, 64 US-09-541-345-93 Sequence 91, 64 US-09-541-345-93 Sequence 91, 64 US-09-541-345-93 Sequence 91, 64 US-09-541-345-94 Sequence 91, 64 US-09-541-345-94 Sequence 91, 64 US-09-541-345-94 Sequence 91, 6	100.0 16 4 US-09-541-345-99 Sequence 99, 100.0 16 4 US-09-541-345-100 Sequence 10, 100.0 16 4 US-09-541-345-100 Sequence 10, 100.0 16 4 US-09-541-345-105 Sequence 10, 100.0 16 4 US-09-541-345-105 Sequence 10, 100.0 16 5 PCT-US92-08634-5 Sequence 2, 100.0 16 5 PCT-US94-06994-5 Sequence 2, 100.0 17 US-08-34-345-105 Sequence 2, 100.0 17 US-08-34-35-105 Sequence 2, 100.0 17 US-08-34-35-35-34-3 Sequence 7, 100.0 17 2 US-08-34-3-3 Sequence 17, 100.0 17 2 US-08-34-3-3 Sequence 17, 100.0 17 2 US-08-345-5634-5 Sequence 7, 100.0 17 2 US-08-345-5634-5 Sequence 2, 100.0 17 2 US-08-545-5634-54 Sequence 2, 100.0 17 2 US-08-537-759B-238

	equence 54	equence 58	equence 10:	equence 15:	equence 153	equence 160	equence 54	equence 58	equence 59	equence 31	equence 7,	equence 48	equence 49	equence 140 equence 140	equence 54	equence 57	equence 59	equence 10: equence 150	equence 15	equence 15	equence 160 equence 1,	equence 2,	equence 17	equence 17	equence 29	equence 45 equence 1,	equence 2,	equence 26	equence 31 equence 11	equence 11	equence 29. equence 45	equence 54	equence 58	equence 59 equence 10	equence 15	equence 15	equence 15 equence 15	equence 16	equence 25	equence 27 equence 54	ence 57	equence 59 equence 59	e 10	quence 15
US-08-3/Z-1U5-151 US-08-372-105-152 US-08-372-105-159 US-08-372-105-160 US-08-371-65-36	US-0	O-SI	US-08-306-473A-1	US-08-306-473A-1	US-08-306-473A-1 US-08-306-473A-1	US-08-306-473A-1	o-sn	us-o	0-80	ns-o	0-80	us-o	US-08-621-803-4	US-08-621-803-1	US-08-485-445A-	US-08-485-445A- US-08-485-445A-	US-08-485-445A-	US-08-485-445A-	US-08-485-445A-	ns-o-sn	US-08-485-445A-	US-0-SI	us-o	OSD OSD	O-SD	US-08-637-759B-45 US-08-453-925-1	US-0	US-08-447-430	US-08-447-4301 US-08-053-451E	US-08-504-538A-11	0-SD	US-09-119-263	US-09-119-263	US-09-119-263-59 US-09-119-263-10	US-09-119-263-15	US-09-119-263-15	o-sn	US-09-119-263-16	US-0	0-80	0-SU	0-SD	O-SD	ns-0
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1227			-453-840-199 Sequence 199	-865-989-199 Sequence 199	-865-989-224 Sequence 224 -350-841A-1147 Sequence 114	-453-834-199 Sequence 199	-453-834-224 Sequence 224 -695-437A-63 Sequence 63	-695-437A-64 Sequence 64	-966-931A-24 Sequence 24, -774-639-236 Sequence 236	-490-324-249 Sequence 24	-537-400-35	1-252-149B-8 Sequence 8,	1-081-975-13 Sequence 13,	7-461-325-291 Sequence 29.	1-489-847-359 Sequence 359	-489-847-360 Sequence 36 -402-1818-118 Sequence 11	1-721-456-118 Sequence 118	-012-542-291 Sequence 29: -012-542-298 Sequence 29:	1-794-529B-9 Sequence 9,	-011-645E-9 Sequence 9,	1-794-832-9 Sequence 9, 1-080-505-51 Sequence 51,	1-732-357B-9 Sequence 9,	1-552-868-9 Sequence 9,	1-636-295-9 Sequence 9, 0-115-123-291 Sequence 29;)-115-123-298 Sequence 298	774-639-342 Sequence 34. 732-384-7 Sequence 7,	1-311-611A-54 Sequence 54	1-311-611A-58 Sequence 58	-311-611A-59 Sequence 59 -311-611A-101 Sequence 103	3-311-611A-150 Sequence 150	-311-611A-151 Sequence 15: -311-611A-152 Sequence 15:	3-311-611A-159 Sequence 150	1-218-025A-65 Sequence 65	1-372-783-54 Sequence 54 3-372-783-57 Sequence 57	1-372-783-58 Sequence 58	1-372-783-59 Sequence 59	3-372-783-101 Sequence 101 3-372-783-150 Sequence 150	1-372-783-151 Sequence 151,	3-372-783-152 Sequence 152,	3-3/2-/83-159 Sequence 159 3-372-783-160 Sequence 160	3-372-105-54 Sequence 54,	3-3/2-105-3/ Sequence 57, 3-372-105-58	3-372-105-59 Sequence 59, 3-372-105-101 Sequence 101.	3-372-105-150 Sequence 150. App
-453-803-1199 sequence 129 -453-803-224 sequence 129 -515-965A-1147 sequence 119 -453-826-1199 sequence 119 -451-852-224 sequence 129	4 US-09-350-641C-1147 Sequence 114 4 US-09-490-070A-249 Semience 214	4 US-09-490-153-249 Sequence 24	4 US-09-453-840-199 Sequence 199	4 US-09-865-989-199 Sequence 199	4 US-09-865-989-224 Sequence 22, 4 US-09-350-841A-1147 Sequence 11,	4 US-09-453-834-199 Sequence 199	4 US-09-453-834-224 Sequence 224 4 US-09-695-437A-63 Sequence 63,	4 US-09-695-437A-64 Sequence 64	4 US-09-966-931A-24 Sequence 24, 4 US-09-774-639-236 Sequence 236	4 US-09-490-324-249 Sequence 249	2 US-08-537-400-35 Sequence 35,	3 US-09-252-149B-8 Sequence 8,	4 US-09-081-975-13 Sequence 13,	4 US-09-461-325-291 Sequence 29:	4 US-09-489-847-359 Sequence 359	4 US-09-489-847-360 Sequence 360 4 US-09-402-1818-118 Sequence 110	4 US-09-721-456-118 Sequence 118	4 US-10-012-542-291 Sequence 29: 4 US-10-012-542-298 Sequence 29:	4 US-09-794-529B-9 Sequence 9,	4 US-09-011-645E-9 Sequence 9,	4 US-09-794-832-9 Sequence 9, 4 US-10-080-505-51 Sequence 51	4 US-09-732-3578-9 Sequence 9,	4 US-09-552-868-9 Sequence 9,	4 US-09-636-295-9 Sequence 9, 4 US-10-115-123-291 Sequence 29:	4 US-10-115-123-298 Sequence 29	4 US-09-774-639-342 Sequence 34. 4 US-09-732-384-7 Sequence 7,	1 US-08-311-611A-54 Sequence 54	1 US-08-311-611A-58 Sequence 58	1 US-08-311-611A-59 Sequence 59 1 US-08-311-611A-101 Sequence 103	1 US-08-311-611A-150 Sequence 150	1 US-08-311-611A-151 Sequence 15: 1 US-08-311-611A-152 Sequence 15:	1 US-08-311-611A-159 Sequence 150	1 US-08-218-025A-65 Sequence 65	1 US-08-372-783-54 Sequence 54 1 US-08-372-783-57 Sequence 57	1 US-08-372-783-58 Sequence 58	1 US-08-372-783-59 Sequence 59	1 US-08-372-783-101 Sequence 101, 1 US-08-372-783-150 Sequence 150,	1 US-08-372-783-151 Sequence 151,	1 US-08-372-783-152 Sequence 152,	1 US-08-3/2-/83-159 Sequence 159,	1 US-08-372-105-54 Sequence 54,	1 US-08-372-103-37 Sequence 37, 1 US-08-372-105-58	1 US-08-372-105-59 Sequence 59, 1 US-08-372-105-101 Sequence 101	1 US-08-372-105-150 Sections 150, App
4 US-09-453-803-224 Sequence 129 4 US-09-453-803-224 Sequence 124 4 US-09-515-965A-1147 Sequence 117 4 US-09-453-826-1199 Sequence 119 4 US-09-453-826-224 Sequence 199	3 100.0 18 4 US-09-350-641C-1147 Sequence 213 3 100.0 18 4 US-09-490-70A-249 Semience 213	3 100.0 18 4 US-09-490-153-249 Sequence 243 3 100.0 18 4 US-09-620-013-349 Sequence 244	3 100.0 18 4 US-09-453-840-199 Sequence 199	3 100.0 18 4 US-09-865-989-199 Sequence 199	3 100.0 18 4 US-09-865-989-224 Sequence 22 ^o 3 100.0 18 4 US-09-350-841A-1147 Sequence 11 ^o	3 100.0 18 4 US-09-453-834-199 Sequence 199	3 100.0 18 4 US-09-453-834-224 Sequence 224 3 100.0 18 4 US-09-695-437A-63 Sequence 63	3 100.0 18 4 US-09-695-437A-64 Sequence 64	3 100.0 18 4 US-UY-966-931A-24 Sequence 24, 3 100.0 18 4 US-09-774-639-236 Sequence 236	3 100.0 18 4 US-09-490-324-249 Sequence 24:	3 100.0 19 2 US-08-537-400-35 Sequence 35,	3 100.0 19 3 US-09-252-149B-8 Sequence 8,	3 100.0 19 4 US-09-081-975-13 Sequence 13,	3 100.0 19 4 US-09-461-325-291 Sequence 29:	3 100.0 19 4 US-09-489-847-359 Sequence 35:	3 100.0 19 4 US-09-489-847-360 Sequence 36 3 100.0 19 4 US-09-402-181B-118 Sequence 110	3 100.0 19 4 US-09-721-456-118 Sequence 110	3 100.0 19 4 US-10-012-542-291 Sequence 29: 3 100.0 19 4 US-10-012-542-298 Sequence 29:	3 100.0 19 4 US-09-794-529B-9 Sequence 9,	3 100.0 19 4 US-09-011-645E-9 Sequence 9,	3 100.0 19 4 US-09-794-832-9 Sequence 9, 3 100.0 19 4 US-10-080-505-51 Sequence 51.	3 100.0 19 4 US-09-732-3578-9 Sequence 9,	3 100.0 19 4 US-09-552-868-9 Sequence 9,	3 100.0 19 4 US-09-636-295-9 Sequence 9, 3 100.0 19 4 US-10-115-123-291 Sequence 29;	3 100.0 19 4 US-10-115-123-298 Sequence 29	3 100.0 19 4 US-09-7/4-639-342 Sequence 34. 3 100.0 19 4 US-09-732-384-7 Sequence 7,	3 100.0 20 1 US-08-311-611A-54 Sequence 54	3 100.0 20 1 US-08-311-611A-58 Sequence 58	3 100.0 20 1 US-08-311-611A-59 Sequence 59 3 100.0 20 1 US-08-311-611A-101 Sequence 10	3 100.0 20 1 US-08-311-611A-150 Sequence 15	3 100.0 20 1 US-08-311-611A-151 Sequence 15: 3 100.0 20 1 US-08-311-611A-152 Sequence 15:	3 100.0 20 1 US-08-311-611A-159 Sequence 15:	3 100.0 20 1 US-08-218-025A-65 Sequence 65	3 100.0 20 1 US-08-372-783-54 Sequence 54 3 100.0 20 1 US-08-372-783-57 Sequence 57	3 100.0 20 1 US-08-372-783-58 Sequence 58	3 100.0 20 1 US-08-372-783-59 Sequence 59	3 100.0 20 1 US-08-372-783-101 Sequence 101. 3 100.0 20 1 US-08-372-783-150 Sequence 150.	3 100.0 20 1 US-08-372-783-151 Sequence 151	3 100.0 20 1 US-08-372-783-152 Sequence 152	3 100.0 20 1 US-08-3/2-/83-159 Sequence 159	3 100.0 20 1 US-08-372-105-54 Sequence 54,	3 100.0 20 1 US-08-372-105-54 Sequence 58,	3 100.0 20 1 US-08-372-105-59 Sequence 59, 3 100.0 20 1 US-08-372-105-101 Sequence 101.	1 110 - 00 - 1 110 - 00 - 100 - 00 - 100 - 00 - 100 -

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159, App 160, App 17, Appl 8 3, Appl 54, Appl	5 58, Appl 9 5 59, Appl 9 10 4 App 9 150, App 9	9 151, App 9 152, App 9 152, App 9 153	160, App 996, App 996	54, Appl 9	83, Appl 9	1, Appli 7, Appli 47, Appl	44, Appl	120, App	12, Appl 9	7, Appli 99	458, App 998 998 998 998 998 998 998 998 998 9	ii, Appl	234, App 9 13, Appl 9 13, Appl 9	8, Appli	11, Appl 9 14, Appl 9 15. Appl 9	16, Appl	19, Appl 9	234, App 54, Appl 234, App	744, App 99	ance 31, Appl	ence 8. Appli	ance 39, Appl	ence 33, Appl ence 39, Appl ence 11 Appl	ence 13, Appl	ance 17, Appl	ance 15, Appl	ence 3, Appli ence 11, Appl	ence 13, Appl ence 15, Appl	ence 17, Appl 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	ce 11, Appl
equence 159, App equence 160, App equence 77, Appl equence 54, Appl equence 54, Appl	equence 58, Appl 9 equence 59, Appl 9 equence 10, App 9 equence 150, App 9	equence 151, App equence 152, App	equence 150, App	equence 54, Appl	equence 83, Appl	equence 1, Appli equence 7, Appli equence 47 Appl	equence 47, Appl equence 48, Appl	equence 120, App	equence 12, Appl 9	equence /1, Appli equence 7, Appli equence 294 ann	equence 45%, App equence 458, App equence 8, App	equence 11, Appl	equence 234, App equence 13, Appl equence 13, Appl	equence 8, Appl	equence 11, Appl 9 equence 14, Appl 9 equence 15, Appl 9	equence 16, Appl	equence 19, Appl	equence 234, App 9 equence 54, Appl 9 equence 234, App 9	equence 744, App	equence 31, Applement 234. App	equence 33. Appli	equence 39, Appl	equence 33, Appl 9 equence 39, Appl 9 equence 11 Appl	equence 15. Appl 9	equence 17, Appl	equence 15, Appl	equence 3, Appli equence 11, Appl	equence 13, Appl	equence 17, Appl 9 equence 19, Appl 9 equence 19, Appl 9	equence 23, Appl equence 11, Appl
equence 159, App equence 160, App equence 77, Appl equence 54, Appl equence 54, Appl	equence 58, Appl 9 equence 59, Appl 9 equence 10, App 9 equence 150, App 9	equence 151, App equence 152, App	equence 150, App	equence 54, Appl	equence 83, Appl	equence 1, Appli equence 7, Appli equence 47 Appl	equence 47, Appl equence 48, Appl	equence 120, App	equence 12, Appl 9	equence /1, Appli equence 7, Appli equence 294 ann	equence 45%, App equence 458, App equence 8, App	equence 11, Appl	equence 234, App equence 13, Appl equence 13, Appl	equence 8, Appl	equence 11, Appl 9 equence 14, Appl 9 equence 15, Appl 9	equence 16, Appl	equence 19, Appl	equence 234, App 9 equence 54, Appl 9 equence 234, App	equence 744, App	equence 31, Applement 234. App	equence 33. Appli	equence 39, Appl	equence 33, Appl 9 equence 39, Appl 9 equence 11 Appl	equence 15. Appl 99	equence 17, Appl	equence 15, Appl	equence 3, Appli equence 11, Appl	equence 13, Appl	equence 17, Appl 9 equence 19, Appl 9 equence 19, Appl 9	equence 23, Appl equence 11, Appl
Sequence 159, App Sequence 160, App Sequence 77, Appl Sequence 54, Appl Sequence 54, Appl	Sequence 58, Appl Sequence 59, Appl Sequence 110, App Sequence 150, App	Sequence 151, App 9 Sequence 152, App 9 Sequence 152, App 9	Sequence 159, App 99	Sequence 54, Appl	Sequence 83, Appl	Sequence 1, Appli Sequence 7, Appli Sequence 47, Appl	Sequence 47, Appl Sequence 48, Appl	Sequence 130, App.	Sequence 12, Appl	Sequence 71, Appl Sequence 74, Appli Sequence 244 ann	Sequence 251, App Sequence 8, App Sequence 8, App	Sequence 11, Appl	Sequence 234, App Sequence 13, Appl Sequence 13, Appl	Sequence 8, Appli	Sequence 11, Appl 99 Sequence 14, Appl 99 Sequence 15, Appl 99	Sequence 16, Appl 9 Sequence 18, Appl 9	Sequence 19, Appl	Sequence 234, App 99 Sequence 24, Appl 99 Sequence 234, Appl 99	Sequence 744, 7FF 9	Sequence 31, Appl	Sequence 33. Appli	Sequence 39, April	Sequence 33, Appl Sequence 31, Appl	Sequence 13, Appl	Sequence 1.7, Appl	Sequence 36, Appl	Sequence 3, Appli	Sequence 13, Appl	Sequence 17, Appl 99	Sequence 23, Appl Sequence 11, Appl
Sequence 159, App Sequence 160, App Sequence 77, Appl Sequence 54, Appl Sequence 54, Appl	Sequence 58, Appl Sequence 59, Appl Sequence 110, App Sequence 150, App	Sequence 151, App 9 Sequence 152, App 9 Sequence 152, App 9	Sequence 159, App 99	Sequence 54, Appl	Sequence 83, Appl	Sequence 1, Appli Sequence 7, Appli Sequence 47, Appl	Sequence 47, Appl Sequence 48, Appl	Sequence 130, App.	Sequence 12, Appl	Sequence 71, Appl Sequence 74, Appli Sequence 244 ann	Sequence 251, App Sequence 8, App Sequence 8, App	Sequence 11, Appl	Sequence 234, App Sequence 13, Appl Sequence 13, Appl	Sequence 8, Appli	Sequence 11, Appl 99 Sequence 14, Appl 99 Sequence 15, Appl 99	Sequence 16, Appl 9 Sequence 18, Appl 9	Sequence 19, Appl	Sequence 234, App 99 Sequence 24, Appl 99 Sequence 234, Appl 99	Sequence 744, 7FF 9	Sequence 31, Appl	Sequence 33. Appli	Sequence 39, April	Sequence 33, Appl Sequence 31, Appl	Sequence 13, Appl	Sequence 1.7, Appl	Sequence 36, Appl	Sequence 3, Appli	Sequence 13, Appl	Sequence 17, Appl 99	Sequence 23, Appl Sequence 11, Appl
Sequence 159, App Sequence 160, App Sequence 77, Appl Sequence 54, Appl Sequence 54, Appl	Sequence 58, Appl Sequence 59, Appl Sequence 110, App Sequence 150, App	Sequence 151, App 9 Sequence 152, App 9 Sequence 152, App 9	Sequence 159, App 99	Sequence 54, Appl	Sequence 83, Appl	Sequence 1, Appli Sequence 7, Appli Sequence 47, Appl	Sequence 47, Appl Sequence 48, Appl	Sequence 130, App.	Sequence 12, Appl	Sequence 71, Appl Sequence 74, Appli Sequence 244 ann	Sequence 251, App Sequence 8, App Sequence 8, App	Sequence 11, Appl	Sequence 234, App Sequence 13, Appl Sequence 13, Appl	Sequence 8, Appli	Sequence 11, Appl 99 Sequence 14, Appl 99 Sequence 15, Appl 99	Sequence 16, Appl 9 Sequence 18, Appl 9	Sequence 19, Appl	Sequence 234, App 99 Sequence 254, Appl 99 Sequence 234, Appl 99	Sequence 744, 7FF 9	Sequence 31, April 99	Sequence 33. Appli	Sequence 39, April	Sequence 33, Appl Sequence 31, Appl	Sequence 13, Appl	Sequence 1.7, Appl	Sequence 36, Appl	Sequence 3, Appli	Sequence 13, Appl	Sequence 17, Appl 99	Sequence 23, Appl Sequence 11, Appl
3-657-162-159 Sequence 159, Apr. 3-657-162-160 Sequence 160, App. 3-612-973-77 Sequence 77, Appl. 9-612-973-83 Sequence 54, Appl. 9-224-480-57 Sequence 54, Appl. 9-224-480-57 Sequence 57, Ap	9-224-480-58 Sequence 58, Appl 9 9-224-480-101 Sequence 150, App 9 9-224-480-1101 Sequence 150, App 9 9-224-480-150 Sequence 150, App 9	9-224-480-151 Sequence 151, App 9 9-224-480-152 Sequence 152, App 9 9-224-480-159 Cerminance 152, App	2-224-480-160 Sequence 150, App 9-181-083-36 Sequence 36, App 9-181-083-36	9-093-539-54 Sequence 54, Appl 9	3-16-234-19 Sequence 19, Appl 9	9-7-400-2086-1 Sequence 1, Appli 9 9-217-352-7 Sequence 7, Appli 9 9-217-352-47 Sequence 47 Appli 9	217-352-49 Sequence 48, Appl 9 9-217-352-49 Sequence 48, Appl 9 9-217-352-49 Sequence 49, Appl 9	2.7.252-12 Sequence 12, App. 9 9-217-352-148 Commonce 120, App. 9 9-217-152-148 Commonce 148 App. 9	2.1.2.2.110 Sequence 110, Appl 9 3-860-556B-12 Sequence 12, Appl 9 6-558-5143.71 Sequence 12, Appl 9	2-22-23-71 Sequence 71, Appl 9-011-922A-7 Sequence 7, Appli 9-011-945-294 Sequence 744 Appl	201-945-258 Sequence 294, App 93-403-2534-8 Sequence 8, App 95-403-2538-8	3-630-052-11 Sequence 11, Appl 9-155-613A-6 Sequence 6, Appli 9	3-643-597-234 Sequence 234, App 9 3-487-795A-13 Sequence 13, Appl 9 3-4121-1058-13 Sequence 13, Appl 9	9-081-975-8 Sequence 8, Appl 9-081-975-10 Sequence 10, Appl	9-081-975-11 Sequence 11, Appl 9 9-081-975-14 Sequence 14, Appl 9 9-081-975-15 Sequence 15, Appl 9	9-081-975-16 Sequence 16, Appl 9 9-081-975-18 Sequence 18, Appl 9	9-081-975-19 Sequence 19, Appl 9 9-081-975-20 Sequence 20, Appl 9	7-180-2844-234 Sequence 234, App 9 9-790-280-24 Sequence 54, Appl 9 8-742-615A-234 Sequence 234, App	9-205-258-744 Sequence 744, App 9-342-673-26 Sequence 26, App 9	9-342-673-31 Sequence 31, Appl 9-34-606-4218-234 Semience 234, App	3-435-816A-8 Sequence 8, Appli 5-535-886C-33 Semience 33, Appl	3-635-886C-39 Sequence 39, Appl	3-9/4-09UC-33 Sequence 33, Appl 9 9-9/4-690C-39 Sequence 39, Appl 9 9-794-5948-11 Sequence 39, Appl 9	2-794-5298-13 Sequence 13, Appl	9-794-520-15 Sequence 17, Appl 9	3-750-754-36 Sequence 36, Appl	3-794-517A-11 Sequence 11, Appl	3-794-517A-13 Sequence 13, Appl 9 3-794-517A-15 Sequence 15, Appl 9	3-794-5174-17 Sequence 17, Appl 9 9-794-517A-19 Sequence 19, Appl 9 9-74-445-23 Ceminary 3 Appl 9	9-004-245-23 Sequence 23, Appl 9-011-645E-11 Sequence 11, Appl 9-0
8-657-162-159 Sequence 159, App 8-657-162-160 Sequence 160, App 8-612-973-77 Sequence 77, Appl 9-612-973-83 Sequence 54, Appl 9-224-480-57 Sequence 54, Appl 9-224-480-57 Sequence 57, Appl	9-224-480-58 Sequence 58, Appl 9 9-224-480-101 Sequence 150, App 9 9-224-480-1101 Sequence 150, App 9 9-224-480-150 Sequence 150, App 9	9-224-480-151 Sequence 151, App 9 9-224-480-152 Sequence 152, App 9 9-224-480-159 Cerminance 152, App	2-224-480-160 Sequence 150, App 9-181-083-36 Sequence 36, App 9-181-083-36	9-093-539-54 Sequence 54, Appl 9	3-16-234-19 Sequence 19, Appl 9	9-7-400-2086-1 Sequence 1, Appli 9 9-217-352-7 Sequence 7, Appli 9 9-217-352-47 Sequence 47 Appli 9	217-352-49 Sequence 48, Appl 9 9-217-352-49 Sequence 48, Appl 9 9-217-352-49 Sequence 49, Appl 9	2.7.252-12 Sequence 12, App. 9 9-217-352-148 Commonce 120, App. 9 9-217-152-148 Commonce 148 App. 9	2.1.2.2.110 Sequence 110, Appl 9 3-860-556B-12 Sequence 12, Appl 9 6-555-51912-71 Sequence 12, Appl 9	2-22-23-7-1 Sequence 7, Appl 9-011-922A-7 Sequence 7, Appli 9	201-945-258 Sequence 294, App 93-403-2534-8 Sequence 8, App 95-403-2538-8	3-630-052-11 Sequence 11, Appl 9-155-613A-6 Sequence 6, Appli 9	3-643-597-234 Sequence 234, App 9 3-487-795A-13 Sequence 13, Appl 9 3-4121-1058-13 Sequence 13, Appl 9	9-081-975-8 Sequence 8, Appl 9-081-975-10 Sequence 10, Appl	9-081-975-11 Sequence 11, Appl 9 9-081-975-14 Sequence 14, Appl 9 9-081-975-15 Sequence 15, Appl 9	9-081-975-16 Sequence 16, Appl 9 9-081-975-18 Sequence 18, Appl 9	9-081-975-19 Sequence 19, Appl 9 9-081-975-20 Sequence 20, Appl 9	7-180-2844-234 Sequence 234, App 9 9-790-280-24 Sequence 54, Appl 9 8-742-615A-234 Sequence 234, App	9-205-258-744 Sequence 744, App 9-342-673-26 Sequence 26, App 9	9-342-673-31 Sequence 31, Appl 9-34-606-4218-234 Semience 234, App	3-435-816A-8 Sequence 8, Appli 5-535-886C-33 Semience 33, Appl	3-635-886C-39 Sequence 39, Appl	3-9/4-09UC-33 Sequence 33, Appl 9 9-9/4-690C-39 Sequence 39, Appl 9 9-794-5948-11 Sequence 39, Appl 9	2-794-5298-13 Sequence 13, Appl	9-794-520-15 Sequence 17, Appl 9	3-750-754-36 Sequence 36, Appl	3-794-517A-11 Sequence 11, Appl	3-794-517A-13 Sequence 13, Appl 9	3-794-5174-17 Sequence 17, Appl 9 9-794-517A-19 Sequence 19, Appl 9 5-644-645-23 Ceminary 3 Appl 9	9-004-245-23 Sequence 23, Appl 9-011-645E-11 Sequence 11, Appl 9-0
0 3 US-08-657-162-159 Sequence 159, App 0 3 US-08-657-162-160 Sequence 160, App 0 3 US-08-612-973-77 Sequence 77, Appl 0 3 US-08-612-973-83 Sequence 54, Appl 0 3 US-09-224-480-54 Sequence 54, Appl	0 3 US-09-224-480-58 Sequence 58, Appl 9 0 3 US-09-224-480-59 Sequence 59, Appl 9 0 3 US-09-224-480-150 Sequence 150, App 9 0 3 US-09-224-480-150 Sequence 150, App 9	0 3 US-09-224-480-151 Sequence 151, App 9 0 3 US-09-224-480-152 Sequence 152, App 9 0 0 1 US-09-274-480-159 Sequence 152, App 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 3 US-09-224-480-160 Sequence 36, App 9 9 0 3 US-09-181-083-36 Sequence 36, App 9 9	0 3 US-09-093-539-54 Sequence 54, Appl 9	0 3 US-108-927-597-83 Sequence 83, Appl 9 9 0 3 US-09-162-934-19 Sequence 19, Appl 9 9 0 0 1 US-09-162-934-19 Sequence 19, Appl 9 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 3 US-19-400-208B-1 Sequence 1, Appli 0 3 US-09-217-352-7 Sequence 7, Appli 0 3 US-09-217-352-47 Sequence 47 Appl	0 3 US-09-217-352-48 Sequence 48, Appl 0 3 US-09-217-352-49 Sequence 48, Appl	0 3 US-09-117-352-120 Sequence 12, App. 9 0 1 IIS-09-217-352-148 Sequence 120, App. 9	0 3 US-09-617-32 3-40 Sequence 140, App 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	0 3 US-09-11-922A-7 Sequence 7, Appli 0 3 US-09-011-922A-7 Sequence 7, Appli 0 3 US-09-201-94E-294 Sequence 74 Appl	0 3 US-09-221-945-458 Sequence 458, App 9 9 0 3 US-08-403-2543-8 Sequence 9 App 9 9	0 3 US-08-610-052-11 Sequence 11, Appl 9 9 0 4 US-09-155-613A-6 Sequence 6, Appli 9	0 4 US-09-643-597-234 Sequence 234, App 9 0 4 US-08-487-795A-13 Sequence 13, Appl 9 0 4 US-08-121-105B-13 Sequence 13, Appl 9	0 4 US-09-081-975-8 Sequence 8, Appl 9 9 9 1 US-09-081-975-10 Sequence 10, Appl	0 4 US-09-081-975-11 Sequence 11, Appl 9 0 4 US-09-081-975-14 Sequence 14, Appl 9 0 4 US-09-081-975-15 Sequence 15, Appl 9	0 4 US-09-081-975-16 Sequence 16, Appl 9	0 4 US-09-081-975-19 Sequence 19, Appl 9 9 0 4 US-09-081-975-20 Sequence 20, Appl 9 9 0 0 1 US-08-08-20 Sequence 20, Appl 9 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 4 US-09-180-084A-234 Sequence 234, App 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	0 4 US-09-205-258-744 Sequence 744, App 9 9 0 4 US-09-342-673-26 Sequence 26, App 9 9	0 4 US-09-342-673-31 Sequence 31, App. 9 0 4 US-09-606-4218-234 Sequence 234, App. 9	0 4 US-08-455-8168-8 Sequence 8, Appli	0 4 US-08-635-886C-39 Sequence 39, Appl	0 4 US-U8-974-09UC-33 Sequence 33, Appl 9 0 4 US-08-974-69UC-39 Sequence 39, Appl 9 0 4 IIS-09-794-520R-11 Sequence 11 Appl 9	0 4 US-09-794-529B-13 Sequence 13, Appl 9	0 4 US-09-124-529B-17 Sequence 17, Appl	0 4 US-09-750-754-36 Sequence 36, Appl	0 4 US-09-498-114A-3 Sequence 3, Appli	0 4 US-09-794-517A-13 Sequence 13, Appl 9	0 4 US-09-794-517A-17 Sequence 17, Appl 9 0 4 US-09-794-517A-19 Sequence 19, Appl 9 0 4 IRC-09-664-946-23 Sequence 19, Appl 9	o 4 US-09-001-645E-11 Sequence 11, Appl 9
0 3 US-08-657-162-159 Sequence 159, App 0 3 US-08-657-162-160 Sequence 160, App 0 3 US-08-612-973-77 Sequence 77, Appl 0 3 US-08-612-973-83 Sequence 54, Appl 0 3 US-09-224-480-54 Sequence 54, Appl	0 3 US-09-224-480-58 Sequence 58, Appl 9 0 3 US-09-224-480-59 Sequence 59, Appl 9 0 3 US-09-224-480-150 Sequence 150, App 9 0 3 US-09-224-480-150 Sequence 150, App 9	0 3 US-09-224-480-151 Sequence 151, App 9 0 3 US-09-224-480-152 Sequence 152, App 9 0 0 1 US-09-274-480-159 Sequence 152, App 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 3 US-09-224-480-160 Sequence 36, App 9 9 0 3 US-09-181-083-36 Sequence 36, App 9 9	0 3 US-09-093-539-54 Sequence 54, Appl 9	0 3 US-108-927-597-83 Sequence 83, Appl 9 9 0 3 US-09-162-934-19 Sequence 19, Appl 9 9 0 0 1 US-09-162-934-19 Sequence 19, Appl 9 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 3 US-19-400-208B-1 Sequence 1, Appli 0 3 US-09-217-352-7 Sequence 7, Appli 0 3 US-09-217-352-47 Sequence 47 Appl	0 3 US-09-217-352-48 Sequence 48, Appl 0 3 US-09-217-352-49 Sequence 48, Appl	0 3 US-09-117-352-120 Sequence 12, App. 9 0 1 IIS-09-217-352-148 Sequence 120, App. 9	0 3 US-09-617-32 3-40 Sequence 140, App 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	0 3 US-09-11-922A-7 Sequence 7, Appli 0 3 US-09-011-922A-7 Sequence 7, Appli 0 3 US-09-201-94E-294 Sequence 74 Appl	0 3 US-09-221-945-458 Sequence 458, App 9 9 0 3 US-08-403-2543-8 Sequence 9 App 9 9	0 3 US-08-610-052-11 Sequence 11, Appl 9 9 0 4 US-09-155-613A-6 Sequence 6, Appli 9	0 4 US-09-643-597-234 Sequence 234, App 9 0 4 US-08-487-795A-13 Sequence 13, Appl 9 0 4 US-08-121-105B-13 Sequence 13, Appl 9	0 4 US-09-081-975-8 Sequence 8, Appl 9 9 9 1 US-09-081-975-10 Sequence 10, Appl	0 4 US-09-081-975-11 Sequence 11, Appl 9 0 4 US-09-081-975-14 Sequence 14, Appl 9 0 4 US-09-081-975-15 Sequence 15, Appl 9	0 4 US-09-081-975-16 Sequence 16, Appl 9	0 4 US-09-081-975-19 Sequence 19, Appl 9 9 0 4 US-09-081-975-20 Sequence 20, Appl 9 9 0 0 1 US-08-08-20 Sequence 20, Appl 9 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 4 US-09-180-084A-234 Sequence 234, App 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	0 4 US-09-205-258-744 Sequence 744, App 9 9 0 4 US-09-342-673-26 Sequence 26, App 9 9	0 4 US-09-342-673-31 Sequence 31, App. 9 0 4 US-09-606-4218-234 Sequence 234, App. 9	0 4 US-08-455-8168-8 Sequence 8, Appli	0 4 US-08-635-886C-39 Sequence 39, Appl	0 4 US-U8-974-09UC-33 Sequence 33, Appl 9 0 4 US-08-974-69UC-39 Sequence 39, Appl 9 0 4 IIS-09-794-520R-11 Sequence 11 Appl 9	0 4 US-09-794-529B-13 Sequence 13, Appl 9	0 4 US-09-124-529B-17 Sequence 17, Appl	0 4 US-09-750-754-36 Sequence 36, Appl	0 4 US-09-498-114A-3 Sequence 3, Appli	0 4 US-09-794-517A-13 Sequence 13, Appl 9	0 4 US-09-794-517A-17 Sequence 17, Appl 9 0 4 US-09-794-517A-19 Sequence 19, Appl 9 0 4 IRC-09-664-946-23 Sequence 19, Appl 9	o 4 US-09-001-645E-11 Sequence 11, Appl 9
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100.0 20 3 US-08-657-162-159 Sequence 159, App 2100.0 20 3 US-08-657-162-160 Sequence 160, App 2100.0 20 3 US-08-612-973-77 Sequence 77, Appl 2100.0 20 3 US-08-612-973-83 Sequence 54, Appl 2100.0 20 3 US-09-224-480-54 Sequence 54, Appl 2100.0 20 3 US-09-224-480-57 Sequence 57, Appl 29	100.0 20 3 US-09-224-480-58 Sequence 58, Appl 9 100.0 20 3 US-09-224-480-59 Sequence 59, Appl 9 100.0 20 3 US-09-224-480-101 Sequence 1101, App 9 100.0 20 3 US-09-224-480-150 Sequence 150, App 9	100.0 20 3 US-09-224-480-151 Sequence 151, App 9 100.0 20 3 US-09-224-480-152 Sequence 152, App 9 100.0 20 3 US-09-224-480-178 Sequence 152, App 9 9	100.0 20 3 US-09-224-480-160 Sequence 160, App 9 100.0 20 3 US-09-181-083-36 Sequence 36, App 9 9	100.0 20 3 US-09-093-539-54 Sequence 54, Appl 9	100.0 20 3 US-09-162934-19 Sequence 19, Appl 99	100.0 20 3 US-09-208B-1 Sequence 1, Appl.1 9 100.0 20 3 US-09-217-352-7 Sequence 7, Appl.1 9 100.0 20 3 US-09-217-352-47 Sequence 47, Appl.1 9	100.0 20 3 US-09-217-352-48 Sequence 49, Appl 9	100.0 20 3 US-09-217-352-120 Sequence 120, App 90 100.0 20 3 US-09-217-352-148 Sequence 120, App 90 100.0 20 3 US-09-217-352-148 Sequence 148 App 90 100.0 20 3 US-09-217-352-148 Sequence 120, App 90 100.0 20 US-09-217-352-	100.0 20 3 US-08-6568-12 Sequence 12, Appl 9	100.0 20 3 US-09-201-922A-7 Sequence 7, Appli 100.0 20 3 US-09-011-922A-7 Sequence 7, Appli 100.0 20 3 US-09-201-945-294 Sequence 24 Appli	100.0 20 3 US-09-201-945-458 Sequence 8, App 9 100.0 20 3 US-08-403-253A-8 Sequence 8, App 9	100.0 20 3 US-08-630-052-11 Sequence 11, Appl 9 100.0 20 4 US-09-155-613A-6 Sequence 6, Appli	100.0 20 4 US-09-643-597-234 Sequence 234, App 9 100.0 20 4 US-08-487-795A-13 Sequence 13, Appl 9 100.0 20 4 US-08-121-105B-13 Sequence 13, Appl 9 9	100.0 20 4 US-09-081-975-8 Sequence 8, Appl 99100.0 20 4 US-09-081-975-10 Sequence 10, Appl 9910.0 9910-0910-0910-0910-0910-0910-0910-091	100.0 20 4 US-09-081-975-11 Sequence 11, Appl 9 100.0 20 4 US-09-081-975-14 Sequence 14, Appl 9 100.0 20 4 US-09-081-975-15 Sequence 15, Appl 9	100.0 20 4 US-09-081-975-16 Sequence 16, Appl 9	100.0 20 4 US-09-081-975-19 Sequence 19, Appl 9 100.0 20 4 US-09-081-975-20 Sequence 20, Appl 9 100.0 20, 4 115 00,400, 00,413, 234 Sequence 20, Appl 9 9	100.0 20 4 US-09-542-615A-234 Sequence 54, App 9 9 100.0 20 4 US-09-542-615A-234 Sequence 54, App 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	100.0 20 4 US-09-205-258-744 Sequence 744, App 9 100.0 20 4 US-09-342-673-26 Sequence 26, App 9	100.0 20 4 US-09-342-673-31 Sequence 31, Appl 9 100.0 20 4 US-09-606-4218-234 Sequence 234, Appl 9	100.0 20 4 US-08-435-816A-8 Sequence 8, Appli	100.0 20 4 US-08-635-886C-39 Sequence 39, Appl	100.0 20 4 US-08-74-690C-33 Sequence 33, Appl 9 100.0 20 4 US-08-744-690C-39 Sequence 39, Appl 9 100.0 20 4 US-08-784-450C-39 Sequence 39, Appl 9	100.0 20 4 US-09-794-529B-13 Sequence 15, Appl 9	100.0 20 4 US-09-794-529B-17 Sequence 17, Appl 9	100.0 20 4 US-09-754-35 Sequence 36, Appl	100.0 20 4 US-09-498-134A-3 Sequence 3, Appli	100.0 20 4 US-09-794-517A-13 Sequence 13, Appl 9	100.0 20 4 US-09-794-517A-17 Sequence 17, Appl 9 100.0 20 4 US-09-794-517A-19 Sequence 19, Appl 9 100.0 20 4 US-09-664-945.23 Sequence 19, Appl 9 9	100.0 20 4 US-09-011-645E-11 Sequence 11, Appl
equence 159, App equence 160, App equence 77, Appl equence 54, Appl equence 54, Appl	38 23 100.0 20 3 US-09-224-480-58 Sequence 58, Appl 9 39 23 100.0 20 3 US-09-224-480-59 Sequence 59, Appl 9 40 23 100.0 20 3 US-09-224-480-101 Sequence 101, App 9 41 23 100.0 20 3 US-09-224-480-150 Sequence 150, App 9	43 23 100.0 20 3 US-09-224-480-151 Sequence 151, App 9 43 23 100.0 20 3 US-09-224-480-152 Sequence 152, App 9 44 23 100.0 20 3 US-09-224-480-152 Sequence 152, App 9	45 23 100.0 20 3 US-09-224-480-160 Sequence 160, App 946 23 100.0 20 3 US-09-181-083-36 Sequence 36, App 99	47 23 100.0 20 3 US-09-093-539-54 Sequence 54, Appl 9	49 23 100.0 20 3 US-08-927-597-83 Sequence 83, Appl 9 9 50 30 100.0 20 3 US-09-162-934-19 Sequence 19, Appl 9 9 51 100.0 20 3 US-09-162-934-19 Sequence 19, Appl 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	51 23 100.0 20 3 US-09-400-208B-1 Sequence 1, Appl. 9 52 23 100.0 20 3 US-09-217-352-7 Sequence 7, Appl. 9 53 23 100.0 20 3 US-09-217-352-47 Sequence 47 Appl. 9	54 23 100.0 20 3 US-09-217-352-48 Sequence 49, Appl 55 23 100.0 20 3 US-09-217-352-49 Sequence 49, Appl 69	56 23 100:0 20 3 US-09-217-352-120 Sequence 120, App. 57 23 100:0 20 3 US-09-217-352-148 Sequence 120, App. 99	58 23 100.0 20 3 US-08-17-17-12 Sequence 12, Apr 9 5 7 1100.0 20 3 US-08-808-12 Sequence 12, Apr 9 9 9 9 119-08-57-57-518-71 Sequence 11, Apr 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	5 2 100.0 20 3 US-09-22-335A-7 Sequence 7, Appl. 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	62 23 100.0 20 3 US-09-201-9458 Sequence 858, App 63 US-08-403-253A-8 Sequence 8, App 9	64 23 100.0 20 3 US-08-630-052-11 Sequence 11, Appl 9	be 23 100.0 20 4 US-09-643-597-234 Sequence 234, App 9 67 23 100.0 20 4 US-08-487-795A-13 Sequence 13, Appl 9 68 23 100.0 20 4 US-08-121-105B-13 Sequence 13, Appl 9	69 23 100.0 20 4 US-09-081-975-8 Sequence 8, Appli	71 23 100.0 20 4 US-09-081-975-11 Sequence 11, Appl 9 72 23 100.0 20 4 US-09-081-975-14 Sequence 14, Appl 9 73 23 100.0 20 4 US-09-081-975-15 Sequence 15, Appl 9	74 23 100.0 20 4 US-09-081-975-16 Sequence 16, Appl 9	77 23 100.0 20 4 US-09-081-975-19 Sequence 19, Appl 9 77 23 100.0 20 4 US-09-081-975-20 Sequence 20, Appl 9 78 23 100.0 20 4 US-09-081-975-20 Sequence 20, Appl 9 79 23 100.0 20 4 US-09-081-975-20	79 23 100.0 20 4 US-09-790-2844 Sequence 5.4, App 977 23 100.0 20 4 US-09-542-615A-234 Sequence 5.4, App 980 23 100.0 20 4 US-09-542-615A-234 Sequence 2.34, App 980 23 100.0 20 4 US-09-542-615A-234 Sequence 2.34, App 980 29 20 20 20 20 20 20 20 20 20 20 20 20 20	81 23 100.0 20 4 US-09-205-258-744 Sequence 744, App 982 23 100.0 20 4 US-09-342-673-26 Sequence 26, App 9	83 23 100.0 20 4 US-09-342-673-31 Sequence 31, April 9 84 23 100.0 20 4 US-09-606-4218-234 Sequence 234, April 9	85 23 100.0 20 4 US-08-435-816A-8 Sequence 3, Appli 96 23 100.0 20 4 US-08-635-886C-33 Sequence 3, Appli 96	87 23 100.0 20 4 US-08-635-886C-39 Sequence 37, 7257	50 23 100:0 20 4 US-08-9/4-09UC-33 Sequence 33, Appl 9 89 23 100:0 20 4 US-08-9/4-69UC-39 Sequence 39, Appl 9 90 23 100:0 20 4 US-08-294-529R-11 Sequence 11 Appl 9	91 23 100.0 20 4 US-09-794-529B-13 Segmence 15, Appl 92 23 100.0 20 4 US-09-794-529B-15 Segmence 15, Appl 9	93 23 100.0 20 4 US-09-794-529B-17 Sequence 17, Appl 99	23 100.0 20 4 US-09-754-36 Sequence 36, Appl 995 23 100.0 20 4 US-09-764-36 Sequence 36, Appl 995 23 100.0 20 4 US-09-764-36 Sequence 36, Appl 995 23 100.0 20 4 US-09-764-36 Sequence 36, Appl 995 23 100.0 20 4 US-09-764-36 Sequence 36, Appl 995 24 US-09-764-36 Sequence 36, Appl 995 24 US-09-764-36 Sequence 36, Appl 995 24 US-09-764-36 Sequence 36, Appl 995 25 US-09-764-36	95 23 100.0 20 4 US-09-194-517A-11 Sequence 3, Appl. 997 23 100.0 20 4 US-09-794-517A-11 Sequence 11, Appl	98 23 100.0 20 4 US-09-194-517A-13 Sequence 13, Appl 99 23 100.0 20 4 US-09-194-517A-15 Sequence 15, Appl 99	00 23 100.0 20 4 US-09-794-517A-17 Sequence 17, Appl 9 01 23 100.0 20 4 US-09-794-517A-19 Sequence 19, Appl 9 02 23 100.0 20 4 US-06-664.945-23 Sequence 19, Appl 9	22 20 20 4 US-09-004-345-23 Sequence 23, Appl 9

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Gaps
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US-003-083-893A-8
US-09-063-893A-8

Sequence 8, Application US/09063893A

Sequence 8. Application US/09063893A

GENERAL INFORMATION:
APPLICANT: Kenji OYKZAKI et al.
ITILE OF INVENTION: A NOVEL SIGNAL TRANSDUCTION FACTOR AND A

TITLE OF INVENTION: GENE ENCODING THE SAME

NUMBER OF SEQUENCES: 19

CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 23; DB 2; Length 8;
Pred. No. 4.1e+05;
3; Mismatches 0; Indels
   Indels
                                                                                                                                                                     GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Reppert, Steven M.
APPLICANT: Ebisawa, Takashi
TITLE OF INVENTION: HIGH-AFFINITY MELATONIN
TITLE OF INVENTION: RECEPTORS AND USES THEREOF
NUMBER OF SEQUENCES: 29
CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson P.C.
STREET: 225 Franklin Street
CITY: Boston
STATE: MA
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                                                                                                                                                                                                                                                                                                                                                          COMPUTER: US

ZIP: 02110-2804

ZIP: 02110-2804

COMPUTER READABLE Diskette

MEDIUM TYPE: Diskette

COMPUTER: IBM Comparible

OPERATING SYSTEM: Windows95

SOFTWARE: FastSED for Windows Version 2.0

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/466,103A

FILING DATE: 06-JUN-1995

CLASSIFICATION: 435

PRIOR APPLICATION NUMBER: 08/319,887

FILING DATE: 07-OCT-1994

PRIOR APPLICATION NUMBER: 08/261,857

FILING DATE: 17-JUN-1994

ATTORNEY AGENT INFORMATION:
NAME: FRASEY, JAIS K.

REGISTRATION NUMBER: 34,819
   Mismatches
                                                                                                                                                 Sequence 9, Application US/08466103A Patent No. 5856124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER: 0078
TELECOMUNICATION INFORMATION:
TELEPHONE: 617/542-570
TELEFAX: 617/542-8906
INFORMATION FOR SEQ ID NO: 9:
SEQUENCE CHARACTERISTICS:
LENGTH: 8 amino acids
   9
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25.0%; 1
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Best Local Similarity 25.0
Local 2; Conservative
   2; Conservative
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MOLECULE TYPE: peptide
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                                  1 FXXXWXXX 8
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US-08-466-103A-9
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   Matches
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Sequence 484, App
Patent No. 5514646
Patent No. 5514646
Sequence 77, Appl
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Sequence 29, Appl
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ADDRESSEE: Woodcock Washburn Kurtz Mackiewicz & No. 5519000ris
STREET: One Liberty Place 46th Floor
CITY: Philadelphia
STRATE: Pennsylvania
COUNTRY: United States of America
ZIP: 19103
COMPUTER: ISADBLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/221,580
FILING DATE:
CLASSIFICATION NUMBER: 33.229
REFERENCY/DOCKET NUMBER: CCOR-0140
TELECOMMUNICATION INFORMATION:
TELEPANK: 215-568-3100
TELEPANK: 215-568-3109
TELEPANK: 215-568-3109
TELEPANK: 215-568-3109
TELEPANK: 215-568-3109
TELEPANK: A PANCTERISTICS:
TENETH ON SEQ ID NO: 9:
SEQUENCE CHARACTERISTICS:
                                                                                                             Sequence 36, A Sequence 36, A Sequence 36, A Sequence 47, A Sequence 49, A Sequence 49, A Sequence 31, A Sequence 386,
                                                 Sequence
Sequence
Sequence
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Sequence
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Patent No. 551900
GENERAL INFORMATION:
APPLICANT: Heavner, George A.
APPLICANT: Mervic, Miljenko
APPLICANT: Wervic, Miljenko
APPLICANT: Wervic, Miljenko
APPLICANT: Webert W.
TITLE OF INVENTION: Tumor Necrosis Factor Inhibitors
NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
                                          US-08-42-97-11
US-08-475-879-71
US-09-83-88-4
US-09-433-0438-71
US-09-433-0438-71
US-09-638-202A-36
US-09-638-202A-36
US-09-637-614-36
US-10-122-246A-47
US-10-122-246A-49
US-10-122-246A-52
US-08-669-284B-31
US-08-669-284B-31
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                                                                                                                                                                                                                                                                                  -09-239-043D-773
             3-08-476-537-71
3-08-424-957-15
3-08-485-607-71
3-08-475-879-71
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                                                                                                                                                                                                                                                                                                  -09-620-091-484
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US-08-396-385-7
US-09-220-081-29
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, MOLECULE TYPE: peptide
US-08-221-580-9
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Best Local Similarity
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Sequence 83, Application US/08981392

Sequence 83, Application US/08981392

Betent No. 6262025

GENERAL INFORMATION:

APPLICANT: Henrique, Domingos Manuel Pinto

APPLICANT: Henrique, Domingos Manuel Pinto

APPLICANT: Artavanis-Tsakonas, Spyridon

APPLICANT: Gray, Grace

TITLE OF INVENTION: NUCLEOTIDE AND PROTEIN SEQUENCES

TITLE OF INVENTION: OF VERTEBRATE DELTA GENES AND METHODS BASED THEREON

NUMBER OF SEQUENCES: 94
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US-09-314-242-4
; Sequence 4, Application US/09314242A
; Sequence 4, Application US/09314242A
; Patent No. 624875
; GENERAL INFORMATION:
; APPLICANT: Elizabeth J. Golightly
; TITLE OF INVENTION: Nucleic Acids Encoding Polypeptides
; TITLE OF INVENTION: Nucleic Acids Encoding Polypeptides
; TITLE OF INVENTION: Nucleic Acids Encoding Polypeptides
; TITLE OF INVENTION: NUMBER: US/09/314,242A
; CURRENT PELLING DATE: 1999-05-18
; EARLIER FILING DATE: 1998-05-18
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 23; DB 3; Length 8; 25.0%; Pred. No. 4.18+05; tive 6; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 23; DB 3; Length 8;
Pred. No. 4.18+05;
5; Mismatches 0; Indels
                              CLASSIFICATION: 424
PRIOR APPLICATION DATA
APPLICATION NUMBER: US/08/403,590
FILING DATE: 14-MAR-1995
ATTORNEY/AGENT INFORMATION:
NAME: Harbin, Alisa A.
REGISTRATION NUMBER: 33,895
REFERENCE/DOCKET NUMBER: 0110.002
TELECOMOUNICATION INFORMATION:
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25.0%; P
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY: linear
MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: amino acid
STRANDEDNESS: sir
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1 FDQGWGPI 8
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1 FSYPWWIK 8
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Best Local Similarity
Matches 2; Conserv
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Best Local Similarity
Matches 2; Conserv
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Patent No. 6150087
GENERAL INFORMATION:
APPLICANT: Chien, David Y.
APPLICANT: Rutter, William J.
TITLE OF INVENTION: NANBV Diagnostics and Vaccines NUMBER OF SEQUENCES: 777
CORRESPONDENCE ADDRESS:
ADDRESSEE: Chiron Corporation
STREET: 4560 Horton Street
CITY: Emeryville
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY: USA
ZIP: 94608-2916
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPTREE: PATENTING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/444,818
                                                                                                                                                ZUP: 2006
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 3.5 inch, 1.44 mb
COMPUTER: BM Compatible
COMPUTER: IBM Compatible
COMPUTER: IBM Compatible
COMPUTER: BM Compatible
COMPUTER: BM Compatible
COMPUTER: BM Compatible
COMPUTER: BM Compatible
SOFTWARE: Wardberfect
APPLICATION NUMBER: US/09/063,893A
FILING DATE: April 22, 1998
CLASSIFICATION NUMBER: 435
PRIOR APPLICATION NUMBER:
APPLICATION NUMBER:
FILING DATE:
APPLICATION NUMBER:
FILING DATE:
ATORNEY AGENT INFORMATION:
NAME: Lee Cheng
REFERENCE/DOCKET NUMBER:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELEFAX: 202-721-8250
:: Wenderoth, Lind & Ponack, L.L.P. 2033 K Street, N.W., #800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 8 amino acida
TYPE: amino acid
STRANDEDNESS: single
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                                 STREET: 2033 K St
CITY: Washington
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                                                                                          STATE: D.C. COUNTRY: U.S.A.
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1 FVKGWGXT 8
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NAME/KEY:
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APPLICATION NUMBER: US/08/469,260A
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TELEFAX: 708-938-2623
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTER.FICS:
LENGTH: 8 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TOPOLOGY: linear
MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               amino acid
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1 FSHLWTSG 8
                                                                         CLASSIFICATION:
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APPLICANT: JOHN N. SIMONS
APPLICANT: TAMI J. PILOT-MATIAS
APPLICANT: GEORGE J. DAMSON
APPLICANT: GEORGE G. SCHLAUDER
APPLICANT: SURESH M. DESAI
APPLICANT: THOMAS P. LEARY
APPLICANT: THOMAS P. LEARY
APPLICANT: JAMES C. ERKER
APPLICANT: JAMES C. ERKER
APPLICANT: SHERI L. BUIJK
APPLICANT: SHERI L. BUIJK
APPLICANT: SHERI L. BUIJK
APPLICANT: SHERI S. MUSHAHWAR
APPLICANTION: REAGENTS AND METHODS FOR THEIR USE
CORRESPONDENCE ADDRESSE:
ADDRESSEE: ABBOTT INDOME
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COUNTRY: USA ZATE: 11.

COMPUTER: ELDPY disk COMPUTER: FIDPY disk COMPUTER: PAGENET Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                          COMPUREY: ...

COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: 1BM Compatible
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/981,392
FILING DATE: 22-DEC-1997
CLASSIFICATION NUMBER: 32,605
REFERENCE/DOCKET NUMBER: 32,605
REFERENCE/DOCKET NUMBER: 7326-038
TELECPHONE: 212-790-909
TELECPHONE: 212-790-909
TELEFAX: 212-869-8864
TELEFAX
                              ADDRESSEE: Pennie & Edmonds LLP
STREET: 1155 Avenue of the Americas
CITY: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-08-469-260A-252
; Sequence 252, Application US/08469260A
; Patent No. 6451578
; Patent No. 6451578
; APPLICANT: JOHN N. SIMONS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MOLECULE TYPE: peptide US-08-981-392-83
CORRESPONDENCE ADDRESS:
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1 FGFTWPGT 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/488,446
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEE: ABBOTT LABORATORIES D377/AP6D
1: 100 ABBOTT PARK ROAD
ABBOTT PARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION:
PRIOR APPLICATION:
APPLICATION DATA:
APPLICATION NUMBER: US/08/424,550
FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: POREMBSKI, PRISCILLA E.
REGISTRATION NUMBER: 33,207
REFERENCE/DOCKET NUMBER: 5527.PC.01
TELECOMMUNICATION INFORMATION:
TELEPHONE: 708-937-6365
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/424,550
FILING DATE:
ATTORNEY JGENT INFORMATION:
NAME: POREMBSKI, PRISCILLA E.
REGISTRATION NUMBER: 33,207
REPERENCE/DOCKET NUMBER: 557.PC.01
TELECOMMUNICATION INFORMATION:
TELECHONE: 708-937-6365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY: USA
ZIP: 60064-3500
COMPUTER READABLE FORM:
MEDIUM TYPE: Flopy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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Gaps

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Sequence 13, Application US/09780070

Sequence 13, Application US/09780070

Patent No. 6632616

Sequence 13. Application US/09780070

Patent No. 6632616

APPLICANT: Burke, James

APPLICANT: Burke, James

APPLICANT: Nagai, Yoshitaka

TITLE OF INVENTION: COMPOUNDS THAT SELECTIVELY BIND TO EXPANDED POLYGLUTAMINE REPEAT

TITLE OF INVENTION: AND METHODS OF USE THEREOF

TITLE OF INVENTION: AND METHODS OF USE THEREOF

FILE REFERENCE: 5405.242

CURRENT APPLICATION NUMBER: US/09/780,070

CURRENT FILING DATE: 2000-03-16

PRIOR FILING DATE: 2000-03-16

NUMBER OF SEQ ID NOS: 40

SEQ ID NO 13

SEQ ID NO 13
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Sloan-Kettering Institute for Cancer Research
ROTHMAN, James E.
HARTL, F. Ulrich
HOG, Mee H.
HOUGHTON, Alan
TAKECHI, Yoshizumi
MAYHEW, Mark
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDIUM TYPE: Diskette - 3.5 inch, 1.44 Mb storage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 8;
   Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; DB 4;
4.1e+05;
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OPERATING SYSTEM: MS DOS
SOFTWARE: Word Perfect
CURRENT APPLICATION DATA:
APPLICATION NAMBER: US/09/794,529B
FILING DATE: 09-Jan-2002
CLASSIFICATION: 536
 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
ADDRESSE: Kenyon & Kenyon
STREET: One Broadway
CITY: New York
STATE: NY
CONTWY: US
ZIP: 10004
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 4, Application US/09794529B Patent No. 6641812 GENERAL INFORMATION:
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APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 . VACHAUISM: SYNTHETIC CONSTRUCT
US-09-780-070-13
 2; Conservative
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                                      1 FXXXWXXX 8
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1 FIGPWWKW 8
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Best Local Similarity
Matches 2; Conserv
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1 FSHLWTSG
                                                                                                                                               US-09-780-070-13
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US-09-794-529B-4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
ABOOTT LABORATORIES D377/AP6D
STREET: 100 ABBOTT PARK ROAD
CITY: ABBOTT PARK
                                                                                                                                                            ; Score 23; DB 4;
Pred. No. 4.1e+05;
6; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 252:
                                                                                                                                                                                                                                                                                                                                                           Sequence 252, Application US/08467344A
Patent No. 6586568
GENERAL INPORMATION:
TAMI J. PILOT-MATIAS
GEORGE J. DAWSON
GEORGE G. SCHLAUDER
SURESH M. DESAI
THOMAS P. LEARY
ANTHONY SCOTT MUERHOFF
JAMES C. ERKER
SHERI L. BUJJK
ISA K. MUSHAWAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 08/424,550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATTORNEY/AGENT INFORMATION:
NAME: POREMBSKI, PRISCILLA E.
REGISTRATION NUMBER: 33,207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE/DOCKET NUMBER:
TELECOMMUNICATION INFORMATION:
TELEPHONE: 708-937-6365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: | <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEFAX: 708-938-2623
MATION FOR SEQ ID NO: 252:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                            100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES: 716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
                                                                                                                                         Query Match
Best Local Similarity 25.0.
2; Conservative
         INFORMATION FOR SEQ ID NO SEQUENCE CHARACTERISTICS LENGTH: 8 amino acids
708-938-2623
                                                                                                   MOLECULE TYPE: protein US-08-488-446-252
                                                                      TYPE: amino acid
TOPOLOGY: linear
                                                                                                                                                                                                                                                          FSHLWTSG 8
                                                                                                                                                                                                                                     1 FXXXWXXX 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
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Gaps
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Patent No. 6663868
GENERAL INFORMATION:
APPLICANT: SOTHMAN, James E.
HARTL, F. Ulrich
HOGHTON, Alan
TAKECHI, Yoshizumi
MAYHEW, Mark
TITLE OF INVENTION: Heat Shock Protein-Based Vaccines and
Immunotherapies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OTHER INFORMATION: heat shock protein binding motif SEQUENCE DESCRIPTION: SEQ ID NO: 4:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY: US
ZIP: 10004
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette - 3.5 inch, 1.44 Mb storage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 23; DB 4; Length 8; 25.0%; Pred. No. 4.1e+05; ive 6; Mismatches 0; Indels
                  FILING DATE: August 18, 1995

APPLICATION NUMBER: PCT/USS6/1363

FILING DATE: August 16, 1996

APPLICATION NUMBER: 09/011,645

ATTORNEY/ABGNT INFORMATION:
NAME: Delucia, Richard L.
REGISTRATION NUMBER: 28,839

REFERENCE/DOCKET NUMBER: 11746/13

TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 425-7200

TELERX: (UNLOWIN)

INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM compatible
OPERATING SYGTEM: MS DOS
SOFTWARE: Word Perfect
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/011,645E
FILING DATE: 13-F65-1998
CLASSIFFCATION: 424
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 60/002,479
FILING DATE: August 18, 1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES: 30
CORRESPONDENCE ADDRESS:
ADDRESSEE: Kenyon & Kenyon
                                                                                                                                                                                                                                                                                                                                                                                  TYPE: amino acid
STRANDEDNESS: <Unknown>
TOPOLGGY: linear
MOLECTLE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STREET: One Broadway
CITY: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HYPOTHETICAL: no
FRAGMENT TYPE: internal
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                25.0%;
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Best Local Similarity 25.0
Matches 2; Conservative
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1 FWGLWPWE 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURE
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US-09-011-645E-4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: SIGNAL RECTERING INSTITUTE for Cancer Research
ROTHMAN, James E.
HARTI, F. Ulrich
HOB, Mee H.
HOUGHTON, Alan
TAKECHI, Yoshizumi
MAYHEW, Mark MAHEW, Mark MAHEW, Mark MAHEW, Mark MAHEW, Mark MAHEW, MARK MANAMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:

COMPUTER READABLE FORM:

MEDIUM TYPE: Diskette - 3.5 inch, 1.44 Mb storage COMPUTER: IBM compatible OPERATING SYSTEM: MS DOS SOFTWARB: Word Perfect CURRIN APPLICATION NDATA:

PILING DATE: 19-Oct-2001

CLASSIFICATION: 536

PRIOR APPLICATION DATA:

APPLICATION DATA:

PRIOR APPLICATION DATA:

APPLICATION NUMBER: 60/002,479

FILING DATE: August 18, 1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OTHER INFORMATION: heat shock protein binding motif; SEQUENCE DESCRIPTION: SEQ ID NO: 4: US-09-794-529B-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match

100.0%; Score 23; DB 4; Length 8;
Best Local Similarity 25.0%; Pred. No. 4.1e+05;
Matches 2; Conservative 6; Mismatches 0; Indels
APPLICATION NUMBER: 60/002,490
FILING DATE: AUGUST 18, 1995
APPLICATION NUMBER: PCT/US96/13363
FILING DATE: AUGUST 16, 1996
APPLICATION NUMBER: 09/011,645
FILING DATE: February 13, 1998
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                   NAME: DeLucia, Richard L.
REGISTRATION NUMBER: 28,839
REPERBUCA DOCKET NUMBER: 11746/11
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 425-7200
TELEFAX: (212) 425-5288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Immunotherapies
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CORRESPONDENCE ADDRESS:
ADDRESSEE: Kenyon & Kenyon
                                                                                                                                                                                                                                                                                                                                                                              TYPE: amino acid
STRANDEDNESS: «Unknown»
TOPOLGGY: linear
MOLECULE TYPE: peptide
HYPOTHETICAL: no
FRAGMENT TYPE: internal
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 4, Application US/09794517A Patent No. 6656679 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                    TELEX: «Unknown»
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STREET: One Broadway
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CITY: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY: US
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US-09-794-517A-4
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APPLICANT: UGING, ESTELLE
APPLICANT: UGING, ESTELLE
APPLICANT: UGING, ESTELLE
APPLICANT: VERARENDE CLAUDIE
APPLICANT: GUILLET, JEAN GERADI
TITLE OF INVENTION: LIPOPEPTIDES CONTAINING AN INTERFERON FRAGMENT AND USES
TITLE OF INVENTION: THEREOF IN PHARMACEUTICAL COMPOSITIONS
FILE REPERENCE: USB-97-ADU-IN
CURRENT APPLICATION NUMBER: 2000-11-20
PRIOR FILING DATE: 1999-02-05
PRIOR FILING DATE: 1999-02-06
PRIOR FILING DATE: 1999-02-06
NUMBER OF SEQ ID NOS: 281
SOFTWARE: PATENTIN VET: 2.1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; OTHER INFORMATION: heat shock protein binding motif; SEQUENCE DESCRIPTION: SEQ ID NO: 4:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; Score 23; DB 4; Length 8; 25.0%; Pred. No. 4.1e+05; ive 6; Mismatches 0; Indels
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                        FILING DATE: August 18, 1995
APPLICATION NUMBER: PCT/US96/13363
FILING DATE: August 16, 1996
ATTORNEY/AGENT INFORMATION:
NAME: DeLucia, Richard L.
REGISTRATION NUMBER: 28, 839
REFERENCE/DOCKET NUMBER: 11746/1
TELECOMUNICATION INFORMATION:
TELECOMUNICATION (212) 425-5288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 168, Application US/09601729
Patent No. 6683052
GENERAL INFORMATION:
APPLICANT: THIAM, KADER
APPLICANT: AURIANLT, CLAUDE
APPLICANT: GRAS-MASSE, HELENE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: amino acid
STRANDEDNESS: <Unknown>
TOPOLGGY: linear
MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                            TELEX: <Unknown>
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HYPOTHETICAL: no FRAGMENT TYPE: internal ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 25.0%
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Best Local Similarity 25.0
Matches 2; Conservative
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1 FWGLWPWE 8
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APPLICANT:
APPLICANT:
APPLICANT:
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HARTL, F. Ulrich
HOE, Mee H.
HOUGHTON, Alan
TAKECH, Yoshizumi
MAYHECH, Xoshizumi
TITLE OF INVENTION: Heat Shock Protein-Based Vaccines and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Sloan-Kettering Institute for Cancer Research ROTHMAN, James E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OTHER INFORMATION: heat shock protein binding motif SEQUENCE DESCRIPTION: SEQ ID NO: 4:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ZIP: 10004

COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette - 3.5 inch, 1.44 Mb storage COMPUTER: IBM compatible OPERATING SYSTEM: MS DOS SOFTWARE: Word Perfect CURRENT APPLICATION DATA:
FILING DATE: 27-Feb-2001
CLASSIFICATION: <unversely compared to the c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 100.0%; Score 23; DB 4; Length 8; Best Local Similarity 25.0%; Pred. No. 4.1e+05; Matches 2; Conservative 6; Mismatches 0; Indela
                        FILING DATE: August 18, 1995
APPLICATION NUMBER: PCT/US96/13363
FILING DATE: August 16, 1996
ATTORNEY/AGENT INFORMATION:
NAME: DeLucia, Richard L.
REGISTRATION NUMBER: 28, 839
REPRENCE/DOCKET NUMBER: 11746/1
TELECOMUNICATION INFORMATION:
TELEPHONE: (212) 425-5288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/09/011,645
FILING DATE: 13-Peb-1998
APPLICATION NUMBER: 60/002,479
FILING DATE: August 18, 1995
APPLICATION NUMBER: 60/002,490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Immunotherapies
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 4, Application US/09794832
Patent No. 6673348
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: amino acid
STRANDEDNESS: «Unknown»
TOPOLOGY: linear
MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                     TELEX: «Unknown»
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET: One Broadway
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HYPOTHETICAL: no FRAGMENT TYPE: internal ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
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STATE: NY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 8
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US-09-794-832-4
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Gaps
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                      TITLE OF INVENTION: Heat Shock Protein-Based Vaccines and Immunotherapies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OTHER INFORMATION: heat shock protein binding motif SEQUENCE DESCRIPTION: SEQ ID NO: 4:
                                                                                                                                                                                                                                                                                                   - 3.5 inch, 1.44 Mb storage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 23; DB 4; Length 8; 25.0%; Pred. No. 4.1e+05; tive 6; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 60/002,479
FILING DATE: August 18, 1995
APPLICATION NUMBER: 60/002,490
FILING DATE: August 18, 1995
APPLICATION NUMBER: PCT/US96/13363
FILING DATE: August 16, 1996
APPLICATION NUMBER: 09/011,645
FILING DATE: February 13, 1998
ATTORNEY/AGENT INFORMATION:
NAME: DeLucia, Richard L.
REGISTRATION NUMBER: 28,839
REFERENCE/DOCKET NUMBER: 11746/10
                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/09/680,806A FILING DATE: 05-Oct-2000 CLASSIFICATION: 424 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 252, Application US/08424550B

Patent No. 6720166

GAPELICANT: INFORMATION:

APPLICANT: TAMI J. PILOT-MATIAS

APPLICANT: GEORGE J. DAWSON

APPLICANT: GEORGE G. SCHLAUDER

APPLICANT: SURESH M. DESAI

APPLICANT: THOMAS P. LEARY
                                                                                                                                                                                                                    COUNTRY: US
ZIP: 10004
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette - 3.
COMPUTER: IBM COMPALIBLE
OPERATING SYSTEM: MS DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 425-7200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEFAX: (212) 425-5288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: amino acid
STRANDEDNESS: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: Word Perfect CURRENT APPLICATION DATA:
                                                                                                 CORRESPONDENCE ADDRESS:
ADDRESSEE: Kenyon &
STREET: One Broadway
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INFORMATION FOR SEQ ID NO: 4: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM: <Unknown>
     MAYHEW, Mark
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FRAGMENT TYPE: internal ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY: linear MOLECULE TYPE: peptide
                                                                          NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2; Conservative
                                                                                                                                                                        CITY: New York
STATE: NY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HYPOTHETICAL: no
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 FXXXWXXX 8
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1 FWGLWPWE 8
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Matches 2; Conserv
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US-08-424-550B-252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-680-806A-4
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                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Cella Escenan
APPLICANT: Cella Escenan
APPLICANT: Crack Halph T.
APPLICANT: Grey, Howard M.
APPLICANT: Chesnut, Robert
APPLICANT: Chesnut, Robert
APPLICANT: Chesnut, Robert
APPLICANT: Chesnut, Robert
APPLICANT: Epimmune Inc.
TITLE OF INVENTION: Using Peptide and Nucleic Acid Compositions
TITLE OF INVENTION: Using Peptide and Nucleic Acid Compositions
TITLE OF INVENTION: Using Peptide and Nucleic Acid Compositions
TITLE OF INVENTION: Using Peptide and Nucleic Acid Compositions
TITLE OF INVENTION: Using Peptide and Nucleic Acid Compositions
CURRENT APPLICATION NUMBER: US 09/189,702
PRIOR FILING DATE: 1999-01-27
PRIOR FILING DATE: 1997-03-12
PRIOR FILING DATE: 1997-03-13
PRIOR FILING DATE: 1997-03-13
PRIOR PELICATION NUMBER: US 08/461,603
PRIOR PELING DATE: 1995-06-05
PRIOR PELING DATE: 1994-11-20
PRIOR PELING DATE: 1994-11-20
PRIOR APPLICATION NUMBER: US 08/344,824
PRIOR APPLICATION NUMBER: US 08/344,824
PRIOR PILING DATE: 1994-11-23
PRIOR APPLICATION NUMBER: US 08/278,634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR FILING DATE: 1994-01-21
PRIOR PILING DATE: 1994-01-21
PRIOR APPLICATION NUMBER: US 08/205,713
PRIOR FILING DATE: 1994-03-04
PRIOR FILING DATE: 1994-02-04
PRIOR FILING DATE: 1994-02-16
Remaining Prior Application data removed - See File Wrapper or PALM.
NUMBER OF SEQ ID NOS: 2579
SEQ ID NO 700
LENGTH: 8
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ROTHMAN, James E.
HARTL, F. Ulrich
HOB, Mee H.
HOUGHTON, Alan
TAKECHI, Yoshizumi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 23; DB 4; Length 8;
Pred. No. 4.1e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Orthohepadnaviridae hepatitis B virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 6; Mismatches
                                                                                                                                            Sequence 700, Application US/09239043D
Patent No. 689363
GENERAL INFORMATION:
APPLICANT: Sette, Alessandro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 4, Application US/09680806A Patent No. 6719974 GENERAL INFORMATION:
                                                                                                                                                                                                                                             Sidney, John
Southwood, Scott
Vitiello, Maria A.
Livingston, Brian D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%;
25.0%; P
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Best Local Similarity 25.0
Matches 2; Conservative
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1 FINMWQEV 8
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                                                                                                                        US-09-239-043D-700
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Sloan-Kettering Institute for Cancer Research
ROTHMAN, James E.
HARTL, F. Ulrich
HOG, Mee H.
HOUGHTON, Alan
TAKECHI, Yoshizumi
MAYHEW, Mark
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OTHER INFORMATION: heat shock protein binding motif SEQUENCE DESCRIPTION: SEQ ID NO: 4:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ZIP: 10004
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette - 3.5 inch, 1.44 Mb storage
COMPUTER: IBM compatible
OPERATING SYSTEM: MS DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 23; DB 4; Length 8; Pred. No. 4.1e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Indels
                                                                                                                                              PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/002,479
FILING DATE: August 18, 1995
APPLICATION NUMBER: 60/002,490
FILING DATE: August 18, 1995
APPLICATION NUMBER: PCT/US96/13363
FILING DATE: August 16, 1996
APPLICATION NUMBER: 09/011,645
FILING DATE: Rebruary 13, 1998
ATTORNEY/AGENT INFORMATION:
NAME: DeLucia, Richard L.
                                                                       CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/552,868
FILING DATE: 20-Apr-2000
CLASSIFICATION: 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6; Mismatches
                                                                                                                                                                                                                                                                                                                                                                        REGISTRATION NUMBER: 28,839
REFERENCE/DOCKET NUMBER: 11746/8
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 425-7200
TELEFAX: (212) 425-5288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
ADDRESSEE: Kenyon & Kenyon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 4, Application US/09636295; Patent No. 6773707; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: amino acid
STRANDEDNESS: <Unknown>
TOPOLOGY: linear
MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
100.0%;
Best Local Similarity 25.0%;
Matches 2; Conservative 6
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFORMATION FOR SEQ ID NOWS SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HYPOTHETICAL: no FRAGMENT TYPE: internal ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES: 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY: US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 FWGLWPWE 8
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APPLICANT: JAMES C. ERKER
APPLICANT: SHERI L. BUIJK
APPLICANT: ISA K. MUSHAHWAR
TITLE OF INVENTION: NON-B. NON-C, NON-D, NON-E HEPATITIS
TITLE OF INVENTION: NON-A, NON-B. NON-C, NON-D, NON-E HEPATITIS
NUMBER OF SEQUENCES: | 716
CORRESPONDENCE ADDRESS:
STREEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: Heat Shock Protein-Based Vaccines and Immunotherapies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Sloan-Kettering Institute for Cancer Research ROTHMAN, James E. HARTL, F. Ulrich
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COMPUTER READABLE FORM:

MEDIUM TYPE: UDiskette - 3.5 inch, 1.44 Mb storage
COMPUTER: IBM compatible
OPERATING SYSTEM: MS DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 23; DB 4; Length 8;
Pred. No. 4.1e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Indels
                                                                                                                                                                                                                                                                                             COUNTRY: USA
ZIP: 60064-3500
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/424,550B
FILING DATE:
CLASSIFICATION NUMBER: US/08/424,550B
FILING SYSTEM: NUMBER: US/08/424,550B
FILING ATTON NUMBER: 33,207
REGISTRATION NUMBER: 33,207
REFERENCE/DOCKET NUMBER: 5527.PC.01
TELEPHONE: 708-937-6365
TELEPHONE: 708-937-6365
TELEPHONE: 708-937-6365
TELEPHONE: REGISTICS: FORMATION POR SEQ ID NO: 252:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6; Mismatches
                                                                                                                                                    AND N.

AUDRESS:

AUDRESS:

STREET: 100 ABBOTT LABORATORIES D3

CITY: ABBOTT PARK
STATE: 1L

COUNTRY: 110°

ZIP:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES: 30
CORRESPONDENCE ADDRESS:
ADDRESSEE: Kenyon & Kenyon
STREET: One Broadway
CITY: New York
STATE: NY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HOE, Mee H.
HOUGHTON, Alan
TAKECHI, Yoshizumi
MAYHEW, Mark
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 4, Application US/09552868
Patent No. 6761892
GENERAL INFORMATION:
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Best Local Similarity 25.v.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COUNTRY: US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 FXXXWXXX 8
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100.0%; Score 23; DB 4; Length 8; 25.0%; Pred. No. 4.1e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES: 76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADDRESSEE: Woodcock Washburn Kurtz Mackiewicz & ADDRESSEE: Norris
                       PILING DATE: 17-011-2001
CLASSIFICATION: «Unknown»
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/981,392
FILING DATE: 22-DEC-1997
ATTORNEY/AGENT INFORMATION:
NAME: Misrock, 8 Lesiie
REGISTRATION NUMBER: 18,872
REFERENCE/DOCKET NUMBER: 7326-123
TELECOMMUNICATION INFORMATION:
TELEPHONE: 212-90-9090
TELEPAX: 212-969-864
TELEX 66141 PENNIE
INFORMATION FOR SEQ ID NO: 83:
SEQUENCE CHARACTERISTICS:
LENGTH: 8 amino acide
TYPE: amino acide
TYPE: amino acide
TYPE: amino acide
TYPE: amino acide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred. No. 4.1e
6; Mismatches
       APPLICATION NUMBER: US/09/908,322
                                                                                                                                                                                                                                                                                                                                                                                                                                            TOPOLOGY: unknown
MOLECULE TYPE: peptide
SEQUENCE DESCRIPTION: SEQ ID NO: 83:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STREET: One Liberty Place 46th Floor
CITY: Philadelphia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STATE: Pennsylvania
COUNTRY: USA
ZIP: 19403
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WordPerfect 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US95/04018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/221,580
FILING DATE: 01-APR-1994
APPLICATION NUMBER: US 08/221,583
FILING DATE: 01-APR-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/221,581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: DeLuca, Mark
REGISTRATION NUMBER: 33,229
REFERENCE/DOCKET NUMBER: CCOR-0232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US 08/221,581
FILING DATE: 01-APR-1994
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 71, Application PC/TUS9504018
GENERAL INFORMATION:
APPLICANT: Heavner, George A.
APPLICANT: Kruszynski, Marian
APPLICANT: Meric, Miljenko
APPLICANT: Weber, Robert W.
TITLE OF INVENTION: Tumor Necrosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 25.v.
3; Conservative
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1 FGFTWPGT 8
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PCT-US95-04018-71
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TITLE OF INVENTION: NUCLEOTIDE AND PROTEIN SEQUENCES OF
VERTEBRATE DELTA GENE AND METHODS BASED THEREON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 100.0%; Score 23; DB 4; Length 8; Best Local Similarity 25.0%; Pred. No. 4.1e+05; Matches 2; Conservative 6; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: ISH-Horowicz, David
Henrique, Domingos Manuel Pinto
Lewis, Julian Hart
Artavanis-Tsakonas, Spyridon
SOFTWARE: Word Perfect
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/636,295
FILING DATE: 10-Aug-2000
CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/002,479
FILING DATE: August 18, 1995
APPLICATION NUMBER: 60/002,490
FILING DATE: August 18, 1995
APPLICATION NUMBER: PCT/US96/13363
FILING DATE: August 16, 1996
APPLICATION NUMBER: PCT/US96/1363
FILING DATE: FEBLUARY 13, 1998
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
ADDRESSER: Pennie & Edmonds LLP
STREET: 1155 Avenue of the Americas
CITY: New York
                                                                                                                                                                                                                                                                                                                                                    NAME: DeLucia, Richard L.
REGISTRATION NUMBER: 28,839
REFERENCE/DOCKET NUMBER: 11746/9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FastSEO Version 2.0
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                    TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 425-7200
TELEFAX: (212) 425-5288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 83, Application US/09908322
Patent No. 6783956
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: amino acid
STRANDEDNESS: <Unknown>
TOPOLGGY: linear
MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INFORMATION FOR SEQ ID NO: 4: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HYPOTHETICAL: no
FRAGMENT TYPE: internal
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEX: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY: USA
ZIP: 10036/2711
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1 FWGLWPWE 8
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US-09-908-322-83
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 23; DB 1; Length 9;
Pred. No. 4.1e+05;
6; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/350,884
FILING DATE: 06-DEC-1994
CLASSIFICATION: 435
PRIOR APPLICATION NUMBER: US/080,296
FILING DATE: 04-APR-1991
ATPORNEY/AGENT INFORMATION:
NAME: CIOTTI, THOMAS E.
REFERENCE/DOCKET NUMBER: 21,013
REFERENCE/DOCKET NUMBER: 21,013
REFERENCE/DOCKET NUMBER: 21,013
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION 11900
TELEFRAX: (415) 813-5600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 5, Application US/08350884
| Patent No. 558528
| GENERAL INFORMATION:
| APPLICANT: HOUGHTON, MICHAEL
| APPLICANT: KUO, GDI LIM
| APPLICANT: KUO, GDRGE
| TITLE OF INVENTION: HEPATITIS C VIRUS PROTEASE
| CORRESPONDER ADDRESS:
| ADDRESSEE | 86
| CORRESPONDER BORDERSS:
| ADDRESSEE | 755 Page Mill Road
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STREET: 755 Page Mill Road
CITY: Palo Alto
STATE: California
COUNTRY: USA
ZIP: 94304-1018
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPACIBLE
COMPUTER: IBM PC COMPACIBLE
COMPUTER: IBM PC COMPACIBLE
                  TELEPHONE: (215) 568-3100
TELEFAX: (215) 568-3439
INFORMATION FOR SEQ ID NO: 71:
SEQUENCE CHARACTERISTICS:
LENGTH: 8 amino acide
TYPE: amino acid
TYPE: both
MOLECULE TYPE: peptide
PCT-US95-04018-71
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%;
25.0%; P
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 9 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                      1 PXXXWXXX 8
                                                                                                                                                                                                                                                                                                                                                                              1 FSNHWMNW 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 FXXXWXXX 8
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FHTMWHVT 8
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Best Local Similarity
Matches 2; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-08-350-884-5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: Patentin Release #1.0, Version #1.25
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/350,884
FILING DATE: 06-DEC-1994
CLASSIFICATION 435
PION RAPLICATION 1435
PROBE APPLICATION NUMBER: US/080,296
FILING DATE: 04-APR-1991
ATTONREY/AGBNT INFORMATION:
NAME: CIOTTI THOMAS E: 1,013
REFRENCE/DOCKET NUMBER: 2300-20100.20
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION 1845 494-0792
                  Sequence 8, Application US/08350884

Patent No. 558528

GENERAL INFORMATION:
APPLICANT: HOUGHTON, MICHAEL
APPLICANT: CHOO, QUI LIM
APPLICANT: CHOO, GEORGE
CORRESPONDENCES: 86
CORRESPONDENCES: MORRISON & FOERSTER
STREET: 755 Page Mill Road
CITY: Palo Alto
STATE: California
COUNTRY: USA
ZIP: 94304-1018
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC COMPATER
COM
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US-08-350-884-11
Sequence 11, Application US/08350884
Sequence 11, Application US/08350884
Sequence 11, Application US/08350884
SEPERT NO. 558528
SEPERT NO. SERVICANT: HOUGHTON, MICHAEL
SEPERT CHOO, QUI LIM
APPLICANT: KUO, GEORGE
TITLE OF INVENTION: HEBATITIS C VIRUS PROTEASE
SEQUENCES: 86
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 100.0%; Score 23; DB 1; Best Local Similarity 25.0%; Pred. No. 4.1e+05; Matches 2; Conservative 6; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3: MORRISON & FOERSTER
755 Page Mill Road
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELBFAX: (415) 494-0792
TELEX: 706141
INFORMATION FOR SEQ ID NO: 4
SEQUENCE CHARACTERISTICS:
LENGTH: 9 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2; Conservative
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ZIP: 94304-1018
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STREET: 755 Page N
CITY: Palo Alto
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: amino acid
STRANDEDNESS: sin
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |:::|:::
1 FHTLWHTT 8
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US-08-350-884-8
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                                                                                                                                                                                                              ; Score 23; DB 1; Length 9; Pred. No. 4.1e+05; 6; Mismatches 0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COUNTER: USA

ZIP: 94304-1018

ZIP: 94304-1018

COMPUTER READBLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/709,173
FILING DATE: 06-SEP-1996
CLASSIFICATION DATA:
APPLICATION DATA: 09-708/173
FILING DATE: 04-APR-1991
ATTORNEY/AGENT INFORMATION:
NAME: CIOTTI, THOMAS E.
REGISTRATION NUMBER: 21,013
REFERENCE/DOCKET NUMBER: 22300-20100.20
TELECOMMULCATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 5, Application US/08709173
Patent No. 5712145
GENERAL INFORMATION:
APPLICANT: HOUGHTON, MICHAEL
APPLICANT: CHOO, QUI LIM
APPLICANT: CHOO, QUI LIM
APPLICANT: KO, GEORGE
TITLE OF INVENTION: HEPATITIS C VIRUS PROTEASE
NUMBER OF SEQUENCES: 86
CORRESPONDENCE ADDRESS:
ADDRESSEE: MORRISON & FOERSTER
STREET: 755 Page Mill Road
CITY: Palo Alto
STATE: California
                                                                                                                                                                                                              Query Match
Best Local Similarity 25.0%; I
Matches 2; Conservative 6,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (415) 813-5600
(415) 494-0792
          INFORMATION FOR SEQ ID NO: 1
SEQUENCE CHARACTERISTICS:
LENGTH: 9 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX: (415) 494-079;
TELEX: 706141
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 9 amino acids
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STRANDEDNESS: sin
                                                                                                                                                                                                                                                                                                                1 FXXXWXXX 8
                                                                                                                                                                                                                                                                                                                                            1 FHTLWHTT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 FXXXWXXX 8
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US-08-709-173-5
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US-08-709-173-8
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100.0%; Score 23; DB 1; Length 9;

Best Local Similarity 25.0%; Pred. No. 4.1e+05;

Matches 2; Conservative 6; Mismatches 0; Indels
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE PATENTIN R0-Base #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/350,884
FILING DATE: 06-DEC-1994
CLASSIFICATION 1435
PRIOR APPLICATION NUMBER: US/08/296
FILING DATE: 04-APR-1991
ATPONEY/AGENT INPOMBER: US/08/296
FILING DATE: 04-APR-1991
APPLICATION NUMBER: 21,013
REGISTRATION (415) 813-5600
TELEFPAK: (415) 813-5600
TELEFPAK: (415) 494-0792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY: ADDRESS:
COUNTRY: ADDRESSEE: MORRISON & FORESTER
STREET: 755 Page Mill Road
CITY: Palo Alto
STATE: California
COUNTRY: USA
ZIP: 94304-1018
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/350,884
FILING DATE: 04-DEC-1994
CLASSIFICATION NUMBER: US/08/350,884
FILING DATE: 04-APR-1991
ATFORNEY/AGENT INPORMATION:
NAME: CIOTTI, THOMAS: 21,013
REGISTRATION NUMBER: 21,013
REGISTRATION NUMBER: 21,013
REGISTRATION NUMBER: 21,013
REGISTRATION NUMBER: 21,013
REFERENCE/DOCKET NUMBER: 21,013
REGISTRATION NUMBER: 21,013
REFERENCE/OPOCKET NUMBER: 21,013
REFERENCE/OPOCKET NUMBER: 21,013
RELEPARK: (415) 813-5600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 14, Application US/08350884
Patent No. 588528
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: CHOO, QUI LIM
APPLICANT: KUO, GEORGE
TITLE OF INVENTION: HEPATITIS C VIRUS PROTEASE
NUMBER OF SEQUENCES: 86
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                            TELEFAX: (415) 494-0792
TELEX: 706141
INFORMATION FOR SEQ ID NO: 11:
SEQUENCE CHARACTERISTICS:
LENGTH: 9 amino acids
TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         , TOPOLOGY: linear
US-08-350-884-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 FXXXWXXX 8
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Score 23; DB 1; Length 9; Pred. No. 4.1e+05;
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US-08-709-173-14
Sequence 14, Application US/08709173
Patent No. 5712145
GENERAL INFORMATION:
APPLICANT: HOUGHTON, MICHAEL
APPLICANT: HOUGHTON, MICHAEL
APPLICANT: HOUGHTON, HEPATITIS C VIRUS PROTEASE
INUMBER OF SEQUENCES: 86
CORRESPONDENCE ADDRESS:
ADDRESSED: MORRISON & FOERSTER
STREET: 755 Page Mill Road
CITY: Palo Alto
STATE: California
COUNTY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CUMPIKY: USB

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: BATCHIN Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/709,173
FILING DATE: 06-SEP-1996
CLASSIFICATION DATA:
APPLICATION NUMBER: US 07/680,296
FILING DATE: 04-APR-1991
ATTORNEY/AGENT INFORMATION:
NAME: CIOTTI, THOMAS E:
REGISTRATION NUMBER: 21,013
RELEPAN: (415) 813-5600
TELEEPAN: (415) 494-0792
                  CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/709,173
FILING DATE: 06-SEP-1996
CLASSIFICATION: 435
PRIOR APPLICATION: 435
PRIOR APPLICATION DATE: 04-APR-1991
ATPLING DATE: 04-APR-1991
ATTORNEY/AGENT INPORMATION:
NAME: CTOTTI, THOMAS E:
REGISTRATION NUMBER: 21,013
REFRENCE/OPOCKET NUMBER: 22300-20100.20
TELEPHONE: (415) 813-5600
TELEFRAN: (415) 813-5600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 25.0%;
                                                                                                                                                                                                                                                                                                            TELEPAX: (415) 494-079:
TELEX: 706141
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 9 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: (415) 494-079.
TELEX: 706141
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; TOPOLOGY: linear
US-08-709-173-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 FXXXWXXX 8
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                                                                                                                                                                                                            STREET: 755 Page Mill Road
CITY: Palo Alto
STATE: California
COUNTRY: USA
ZIP: 94304-1018
COMPUTER READBLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM FC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/709,173
FLING DATE: 04-SEP-1996
CLASSIFICATION NUMBER: US 07/680,296
FLING DATE: 04-APR-1991
ATFORNEY/AGENT INPORMATION:
NAME: CIOTTI, THOMAS E
REGISTRATION NUMBER: 21,013
REGISTRATION NUMBER: 21,013
REGISTRATION NUMBER: 21,013
REGISTRATION INFORMATION:
TELEFPAN: (415) 813-5600
TELEFPAN: (415) 813-5600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-08-709-173-11

Sequence 11, Application US/08709173

Sequence 11, Application US/08709173

GENERAL INFORMATION:

APPLICANT: HOUGHTON, MICHAEL
APPLICANT: HOUGHTON, GENGEE

APPLICANT: KUO, GENGEE

TITLE OF INVENTION: HEPATITIS C VIRUS PROTEASE

NUMBER OF SEQUENCES: 86

CORRESPONDENCE ADDRESS:

ADDRESSEE MORRISON & FOERSTER

STREET: 755 Page Mill Road

CITY: Palo Alto

STATE: California

COUNTER: DA10-1018

COMPUTER: EAPABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: ISM PC compatible

COMPUTER: ISM PC compatible

COMPUTER: ISM PC compatible

COMPUTER: ISM PC COMPATIBLE
                                                          APPLICANT: HOUGHTON, MICHAEL
APPLICANT: CHOO, QUI LIM
THE CANT: CHOO, GEORGE
TITLE OF INVENTION: HEPATITIS C VIRUS PROTEASE
NUMBER OF SEQUENCES: 86
CORRESPONDENCE ADDRESS:
ADDRESSEE: MORRISON & FOERSTER
STREET: 755 Page Mill Road
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 6; Mismatches
Sequence 8, Application US/08709173
Patent No. 5712145
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25.0%; I
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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Best Local Similarity 25.0
Matches 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
US-08-709-173-8
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1 FHTLWHTT 8
                    GENERAL INFORMATION:
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Gaps

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ZIP: 94306
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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Best Local Similarity 25.0
Matches 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY: linear MOLECULE TYPE: peptide ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 FXXXWXXX 8
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1 FHTMWHVT 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
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APPLICANT: MASAFUMI, TAKIGUCHI
APPLICANT: MASAFUMI, TAKIGUCHI
APPLICANT: MASAFUMI, TAKIGUCHI
APPLICANT: MIWA, KIYOZH
TITLE OF INVENTION: PEPTIDES CAPABLE OF INDUCING IMMUNE
TITLE OF INVENTION: RESPONSE TO HIV AND ANTI-AIDS AGENT FOR PORTITUE OF INVENTION: CURING AIDS
NUMBER OF SEQUENCES: 115
CORRESPONDENCE ADDRESS:
ADDRESSEE: P.C.
ADDRESSEE: P.C.
ADDRESSEE: P.C.
ATTILE OF INVENTION: SPIVAK, MCCLELLAND, MAIER & NEUSTADT,
ADDRESSEE: P.C.
CITY ARLINGTON
CITY ARLINGTON
                                                                                                                                                                                 Query Match
Best Local Similarity 25.0%; Pred. No. 4.1e+05;
Matches 2; Conservative 6; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 25.0%; Pred. No. 4.1e+05;
Matches 2; Conservative 6; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION DATA:
CURRENT APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
APPLICATION NUMBER:
FILING DATE:
APPLICATION NUMBER:
CLASSIFICATION:
APPLICATION NUMBER:
FILING DATE:
APPLICATION NUMBER:
FILING DATE:
APPLICATION NUMBER:
FILING DATE:
APPLICATION NUMBER:
FILING DATE:
APPLICATION NUMBER:
APPLICATION NUMBER:
FILING DATE:
APPLICATION NUMBER:
APPLICATION NUMBER:
APPRINTNY/AGRNT INFORMATION:
NAME:
OBLON, NORMAN F.
REGISTRATION NUMBER:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION NUMBER:
TEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM: HUMAN IMMUNODEFICIENCY VIRUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ZIP: 22202
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 30, Application US/08615181 Patent No. 575666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION FOR SEQ ID NO: 30:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
LENGTH: 9 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: amino acid
STRANDEDNESS: single
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
US-08-709-173-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MOLECULE TYPE: peptide ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       linear
                                                                                                                                                                                                                                                                                                                                   1 FXXXWXXX 8
                                                                                                                                                                                                                                                                                                                                                                                  |:::|:::
1 FHTLWHTT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 FXXXWXXX 8
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1 FPRPWLHS 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 31
US-08-615-181-30
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY:
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Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 catalytic His region of Kunjin Virus
NS#
                                                                                                                 100.0%; Score 23; DB 1; Length 9; 25.0%; Pred. No. 4.1e+05; ative 6; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Indels
                                      INDIVIDUAL ISOLATE: catalytic His region of Murray INDIVIDUAL ISOLATE: Valley Virus NS3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURREATION SYSTEM: PC-DOS/MS-DOS SOFTWARE: PAtentin Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/638,911A FILING DATE: 04/24/96 CLASSIFICATION: 435 ATTONREY/AGENT INPORMATION:
NAME: REPERENCE/DOCKET NUMBER: 38,443 REPERENCE/DOCKET NUMBER: 4600-0124 TELEPHONE: (415) 324-0860 TELEPHONE: (415) 324-0860 TELEPHONE: (415) 324-0960 INPORMATION POSSIONE SEQ ID NO: 21:
                                                                                                                                                                                                                                                                                                                    Sequence 21, Application US/08638911A
Patent No. 5766916
GENERAL INFORMATION:
APPLICANT: Belaeyv, Alexander S.
APPLICANT: Chong, Susan M.
TITLE OF INVENTION: Hepatitis G Virus Protease
NUMBER OF SEQUENCES: 56
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; Score 23; DB 1;
Pred. No. 4.1e+05;
6; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18: Dehlinger & Associates
350 Cambridge Avenue, Suite 250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRIES
ZIP: 94306
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
TOWNITER: IEM PC compatible
TOWNITER: IEM PC HODOS/MS-DV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-08-709-177-5; Sequence 5, Application US/08709177; Patent No. 5885799; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 100.0%;
Best Local Similarity 25.0%;
Matches 2; Conservative 6
                                                                                             Query Match
Best Local Similarity 25.v.,
2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
LENGTH: 9 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOLECULE TYPE: peptide

ORIGINAL SOURCE:

INDLVIDUAL ISOLATE: c

INDLVIDUAL ISOLATE: c

US-08-638-911A-21
peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        single
                                                                                                                                                                                              1 FXXXWXXX 8
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1 FHTLWHTT 8
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1 FHTLWHTT 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADDRESSEE:
                                                                           US-08-638-911A-18
                                                                                                                                                                                                                                                                                                              US-08-638-911A-21
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                                                                                                                                                                                                                                                                                                                                                                                                                          catalytic His region of West Nile
Fever Virus NS3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY: USA
ZIP: 94306
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION NATA:
APPLICATION NUMBER: US/08/638,911A
PILING DATE: 04/24/96
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: BYANDER: 4600-0124
FREISCHATION NUMBER: 4600-0124
FREISCHATION NUMBER: 4600-0124
TELEFRANCATION INFORMATION:
TELEPAX: (415) 324-0860
TELEFAX: (415) 324-0860
TELEFAX: (415) 324-0860
TELEFAX: 9 amino acide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 18, Application US/08638911A
Patent No. 5766916
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Belaeyv, Alexander S.
APPLICANT: Chong, Susan M.
TITLE OF INVENTION: Hepatitis G Virus Protease
NUMBER OF SEQUENCES: 56
CORRESPONDENCE ADDRESS:
ADDRESSEE: Dehlinger & Associates
STREET: 350 Cambridge Avenue, Suite 250
STREET: CA
CITY: Palo Alto
STATE: CA
              OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
PAPLICATION UMBER: US/08/638,911A
FILING DATE: 04/24/96
CLASSIFICATION: 435
                                                                                                         CLASSIFICATION: 435 |
ATCORNEY/AGENT INFORMATION:
NAME: Evans, Susan T.
REGISTRATION NUMBER: 38,443
REFERENCE/DOCKET NUMBER: 4600-0124
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 324-0800
INFORMATION FOR SEQ ID NO: 15:
SEQUENCE CHARACTERISTICS:
LENGTH: 9 amino acids
IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%;
25.0%; F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match Best Local Similarity 25.v
                                                                                                                                                                                                                                                                                                                            TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY: linear MOLECULE TYPE: peptide ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: amino acid sTRANDEDNESS: single TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                            INDIVIDUAL ISOLATE:
INDIVIDUAL ISOLATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 FXXXWXXX 8
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COMPREY: USB

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/NS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION NUMBER: US/08/709,177
FILING DATE: 06-SEP-1996
CLASSIFICATION NUMBER: US 07/680,296
FILING DATE: 04-APR-1991
ATTORNEY/AGENT INFORMATION:
NAME: CIOTTI, THOMAS E.
REGISTRATION NUMBER: 21,013
REFERENCE/POCKET NUMBER: 21,013
REMANATION FOR SEQ ID NO: 11:
SEQUENCE CHARACTERISTICS:
LUMBER: 21,013
REMANATION FOR SEQ ID NO: 11:
SEQUENCE CHARACTERISTICS:
LUMBER: 21,013
REMANATION FOR SEQ ID NO: 11:
SEQUENCE CHARACTERISTICS:
LUMBER: 21,013
REMANATION FOR SEQ ID NO: 11:
                                                 CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/680,296
FILING DATE: 04-APR-1991
ATTORNEY/AGENT INFORMATION:
NAME: CIOTTI, THOMAS E.
REGISTRATION NUMBER: 21,013
REFERENCE/DOCKET NUMBER: 22300-20100.20
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 813-5600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
100.0%;
Best Local Similarity 25.0%;
Matches 2; Conservative 6
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TRANDES: amino acide

TRANDES: single

CO-08-709-177-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEFAX: (415) 494-079
TELEX: 706141
INFORMATION FOR SEQ ID NO:
SEQUIBNCE CHARACTERISTICS:
LENGTH: 9 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CITY: Palo Alto
STATE: California
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |:::|:::
1 FHTLWHTT 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 38
US-08-709-177-11
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                                                                                                                                                                                                                                                                                                                          CITA.

STATE: CALLL.
COMPUTER: USA
ZIP: 94304-1018

ZIP: 94304-1018

COMPUTER READABLE FORM:
MEDIUM TYPE: Flopy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARR: PATENT N RELEASE #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/709,177
FILING DATE: 06-SEP-1996
CLASSIFICATION DATA:
APPLICATION NUMBER: US 07/680,296
FILING DATE: 04-APR-1991
ATTORNEY/AGRY INFORMATION:
NAME: CIOTIT, THOMAS E.
REGISTRATION NUMBER: 21,013
REFERENCE/DOCKET NUMBER: 21,013
REFERENCE/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-08-709-177-8

Sequence 8, Application US/08709177

Sequence 8, Application US/08709177

Patent No. 5885799

APPLICANT: HOUGHTON, MICHAEL

APPLICANT: CHOO, QUI LIM

APPLICANT: WO, GEORGE

TITLE OF INVENTION: HEPATITIS C VIRUS PROTEASE

NUMBER OF SEQUENCES: 86

NUMBER OF SEQUENCES: 86

CORRESPONDENCE ADDRESS:

ADDRESSEE: MORRISON & FOERSTER
APPLICANT: HOUGHTON, MICHAEL
APPLICANT: CHOO, QUI LIM
APPLICANT: KUO, GEORGE
TITLE OF INVENTION: HEPATITIS C VIRUS PROTEASE
NUMBER OF SEQUENCES: 86
CORRESPONDENCE ADDRESS:
ADDRESSEE: MORRISON & FOERSTER
STREET: 755 Page Mill Road
CITY: Palo Alto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYEE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/709,177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 23; DB 2;
Pred. No. 4.1e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 25.0%; I
Matches 2; Conservative 6
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INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
LENGTH: 9 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 FXXXWXXX 8
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1 FHTMWHVT 8
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Gaps
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Pred. No. 4.1e+05;
6; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 11, Application US/08709177
Patent No. 5865799
GENERAL INFORMATION:
APPLICANT: CHOO, QUI LIM
APPLICANT: CHOO, QUI LIM
APPLICANT: CHOO, GEORGE
TITLE OF INVENTION: HEPATITIS C VIRUS PROTEASE
NUMBER OF SEQUENCES: 86
CORRESPONDENCE ADDRESSE:
ADDRESSEE: WORRISON & FOERSTER
STREET: 755 Page Mill Road
06-SEP-1996
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100.0%; Score 23; DB 3; Length 9; 25.0%; Pred. No. 4.18+05; tive 6; Mismatches 0; Indels
APPLICANT: Celis, Esteban
TITLE OF INVENTION: HLA Binding peptides and Their
TITLE OF INVENTION: USes
TOTLE OF SEQUENCES: 1254
CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend and Crew LLP
STREET: Two Embarcadero Center, Eighth Floor
CITY: San Francisco
STATE: CA
                                                                                                                                                                                         COMPUTRY: USA
ZIP: 94111-3834
ZIP: 94111-3834
COMPUTRY: READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US 008/159,339A
FILING DATE: 29-NOV-1993
CLASSIFICATION NUMBER: US 07/926,666
FILING DATE: 07-AUG-1992
APPLICATION NUMBER: US 08/027,746
FILING DATE: 05-MAR-1993
APPLICATION NUMBER: US 08/103,396
FILING DATE: 06-AUG-1992
APPLICATION NUMBER: US 08/103,396
FILING DATE: 06-AUG-1993
ATTORNEY/AGENT INFORMATION:
NAME: Weber, Ellen Lauver
REGESTSTRATION NUMBER: 32,762
REGESTSTRATION NUMBER: 32,762
REFERENCE/DOCKET NUMBER: 018623-005030US
TELESPHONE: (415) 576-0300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Search completed: October 19, 2005, 15:52:04 Job time : 28.7647 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 100.
Best Local Similarity 25.0
Matches 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TOPOLOGY: linear MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: amino acid
STRANDEDNESS: sir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 FXXXWXXX 8
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2 FWLMWKAK 9
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                                            100.0%; Score 23; DB 2; Length 9; 25.0%; Pred. No. 4.1e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; Score 23; DB 2; Length 9; Pred. No. 4.1e+05; 6; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION DATA:
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/109,177
FILING DATE: 06-SEP-1996
CLASSIFICATION NUMBER: US/08/709,177
FILING APPLICATION: 435
PRIOR APPLICATION TOWNER: US/08/0,296
FILING DATE: 04-APR-1991
ATTONENYAGENT INFORMATION:
NAME: CIOTTI, THOMAS E.
REGISTRATION NUMBER: 21,013
REGISTRATION NUMBER: 21,013
REGISTRATION NUMBER: 21,013
FELERBENCE/DOCKET NUMBER: 21,013
FELERBENCE/DOCKET NUMBER: 21,013
FELERBENCE/DOCKET NUMBER: 21,013
FELERBENCE (415) 813-5600
TELEBRAK: (415) 813-5600
                                                                                                                                                                                                                                                            NS-08-177-14

Sequence 14, Application US/08709177

Sequence 14, Application US/08709177

Patent No. 588799

GENERAL INFORMATION:
APPLICANT: HOUGHTON, MICHAEL
APPLICANT: KUO, GEORGE
TITLE OF INVENTION: HEPATITIS C VIRUS PROTEASE
NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS:
ADDRESSEE: MORRISON & FOERSTER
STREET: 755 Page Mill Road
                                                                                          6; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY: USA
ZIP: 94304-1018
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy| disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0. V
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-08-159-339A-985
; Sequence 985, Application US/08159339A
; Patent No. 6037135
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%;
25.0%; P
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INPORMATION FOR SEQ ID NO: 14:
SEQUENCE CHARACTERISTICS:
LENGTH: 9 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Kubo, Ralph T.
APPLICANT: Grey, Howard M.
APPLICANT: Sette, Alessandro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 100.
Best Local Similarity 25.C
                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STREET: 755 Page M
CITY: Palo Alto
STATE: California
                       Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: amino acid
STRANDEDNESS: sin
                                                                                                                                    1 FXXXWXXX 8
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1 FHTLWHTT 8
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FHTLWHTT 8
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  US-08-709-177-11
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Pred. No. 4.1e 6; Mismatches

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